

117
17 9 125
THE

JANUARY, 1949

Jan '50

Commercial

V.

Refrigeration

AIR CONDITIONING
EQUIPMENT

INDUSTRY

MERCHANDISING * INSTALLATION * MAINTENANCE

Man of the Month...

TURN TO PAGE 36



ALBERT G. WEIL
President
Refrigeration Maintenance Corp.
Chicago, Ill.

DON'T MISS:

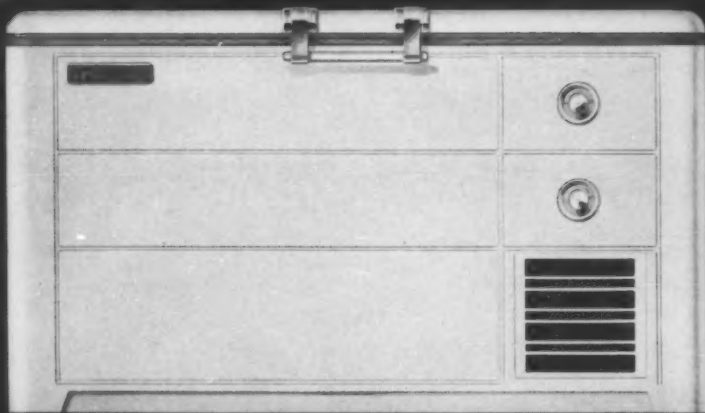
"GOAL TO GO" ... the seventh in a series of "personality portraits" of men who have built successful businesses in the refrigeration field

SCOOP
your freezer
market with
America's finest..

THE NEW YORK
PUBLIC LIBRARY
538809B
ASTOR LENOX AND
TILDEN FOUNDATIONS
R 1970 L

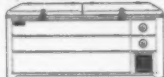
The new 1949 **BEN-HUR**
FARM AND HOME FREEZER

Styled by BROOKS STEVENS, Nationally-Known Industrial Designer



SEE the Complete 1949 BEN-HUR Line
at our Permanent Exhibit, Room 528
AMERICAN FURNITURE MART
Chicago, January 3 to 15

... A BEN-HUR to fit every family



18.45 Cubic Feet



12.5 Cubic Feet



9.19 Cubic Feet

Ben-Hur COMPLETE LINE Sales Advantages . . .
The 1949 BEN-HUR Line again covers models for
EVERY family — 9.19, 12.5 and 18.45 cubic foot
sizes — to fit food freezing and storing needs
from 450 lbs. to 900 lbs.

New Ben-Hur Warranty Protection Plan
BEN-HUR's Warranty Protection Plan, at no extra
cost, includes:

FIVE Year Warranty on Condensing Unit, and
ONE Year on component parts. This is unique
protection that demonstrates the complete
confidence you may enjoy in selling the 1949 BEN-
HUR Farm and Home Freezers.

... PLUS all these time-proven BEN-HUR Features

- Separate Freezing Compartment • All-Steel Construction • Temperature Indicator • Patented Cold Control • Table-Top Design • Safety Hardware • Counter-Balanced Hinges • "Slamless" Dual Latches • Hermetically Sealed Insulation • Sealed Inner Lining • More Effective Cold Contact • Positive Cold Seal • Hermetically Sealed Refrigeration Unit • Pure Copper Tubing

CHECK THEM ALL . . . and you'll choose the
NEW 1949 BEN-HUR LINE

**Built to new leadership standards in
BEAUTY • DESIGN • ENGINEERING
WORKMANSHIP • PERFORMANCE**

For 1949, BEN-HUR offers you today's most exciting selling combination of beauty and performance in freezers! Styling—by Brooks Stevens — is a distinct departure from standard freezer design—combining beauty with utility.

The new cabinet-front motif, with indented vertical and horizontal lines, provides new symmetry and balance, and, just as important, adds greater rigidity to the cabinet.



New Dual Latches, widely spaced, with a connecting bar of crystal-clear Lucite add novel brilliance and beauty — and simplify cover opening and closing. Gleaming white baked enamel, with sparkling chromium metal parts, plus a touch of "Ben-Hur Blue" enamel inlay, complete a "picture" that inspires quick attention. And the many new performance features give you a home freezer sales story that just cannot be duplicated today — for easy selling and years of customer satisfaction. Make the BEN-HUR your Profit-Line for 1949!

*Look for
these
"Extras"...*

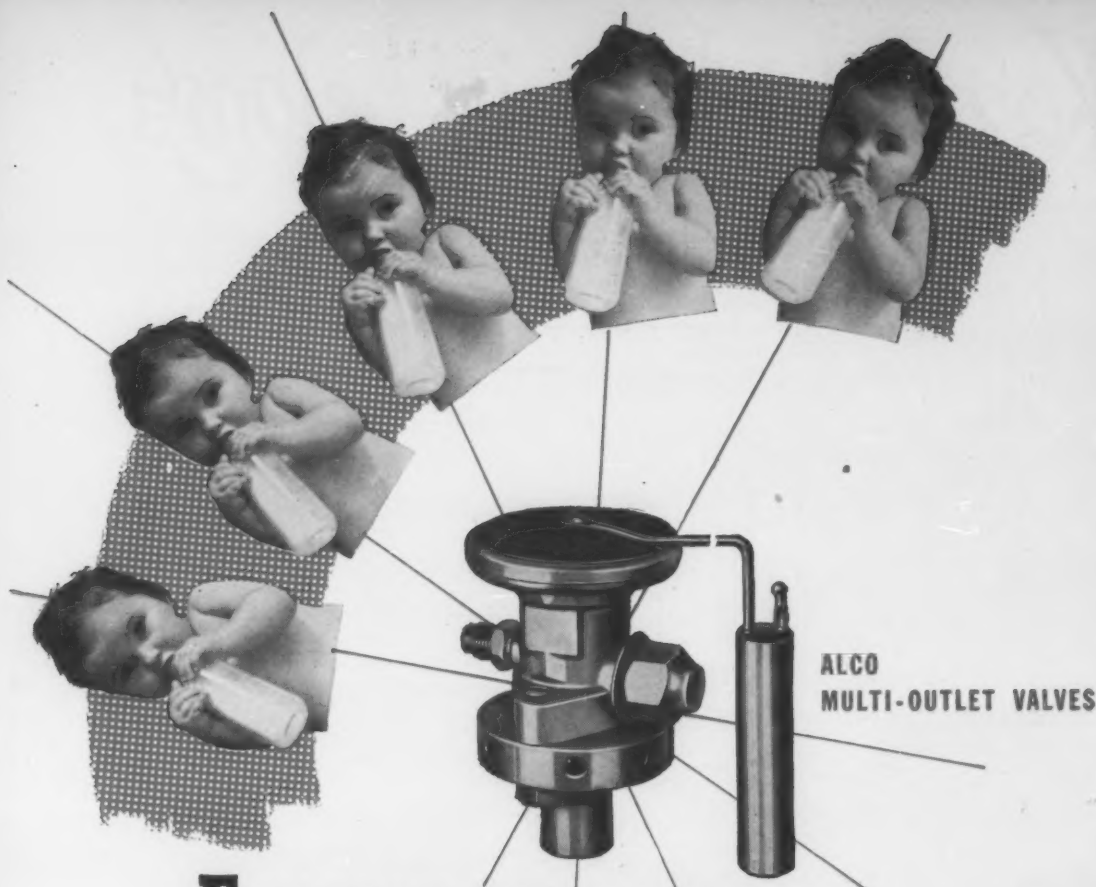


- Complete food baskets and dividers — (Standard equipment)
- New handy ice trays and racks —
- New Ben-Hur Alarm System —
- Special Locks for Dual Latch Handles —

BEN-HUR FARM and HOME FREEZERS

DEPT. R., 634 EAST KEEFE AVENUE
MILWAUKEE 12, WISCONSIN





ALCO
MULTI-OUTLET VALVES

EQUALLY WELL FED!

Coils can deliver full capacity only when the refrigerant is evenly distributed. Faulty feeding often causes a single coil circuit to "flood through" to the valve's thermal bulb, throttling all coil circuits.

REMEDY: Install ALCO Multi-Outlet Thermo Valves. They increase coil capacity $\frac{1}{4}$ to $\frac{1}{2}$ by **uniform distribution:**

- ▶ All circuits are fed equally regardless of load changes
- ▶ Refrigerant is accurately metered within valve body before gas and liquid separate
- ▶ Instant, alert control assures maximum efficiency under all conditions . . . no "hunting" or "cycling"

Available at your wholesaler's for all refrigerants and applications: $\frac{1}{2}$ to 50 tons FREON-12, 2 to 36 outlets. Ask for our Bulletin 180.



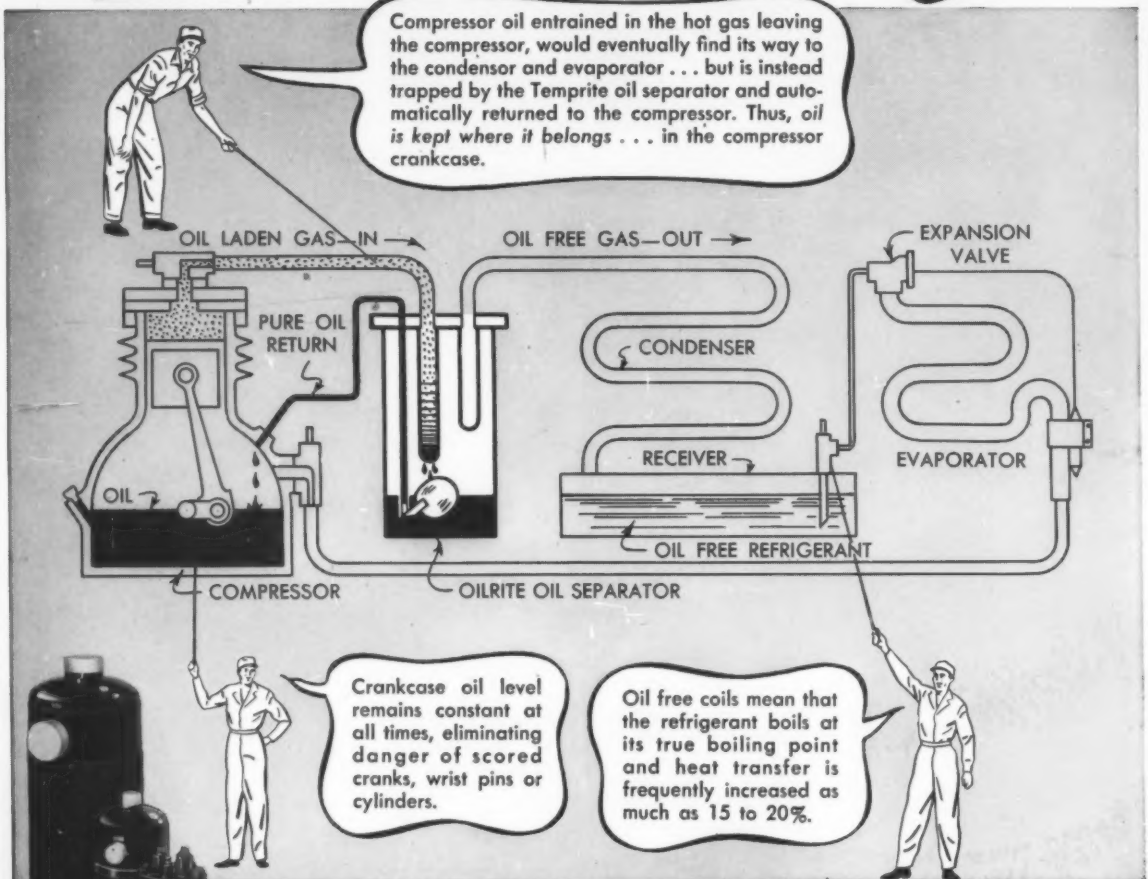
Designers and Manufacturers
of Thermostatic Expansion
Valves; Evaporator Pressure
Regulators; Solenoid Valves;
Float Valves; Float Switches.

ALCO VALVE CO.

843 KINGSLAND AVE. • ST. LOUIS 5, MO.

3525

Keep oil where it belongs...



Available in capacities from 1/6th h.p. to 50 tons . . . for all types of commercial applications.

...with a **TEMPRITE** oil separator

Oil congeals quickly in low temperature coils, cutting down heat transfer and boosting operating time. Because of this common difficulty it is frequently impossible to reach desired temperatures. A Temprite Oil Separator overcomes

this problem and permits the refrigerant to boil at its true boiling point. Temperatures from 4 to 7 degrees lower are easily reached at no increase in operating time.

Write now for full particulars.

TEMPRITE PRODUCTS CORP.

ESTABLISHED 1929



Originators of Instantaneous



Liquid Cooling Devices

41 PIQUETTE AVENUE

DETROIT 2, MICHIGAN

JANUARY, 1949

VOLUME 6, NO. 1

THIS MAGAZINE has no official affiliation with ANY group, society or association.

IRVING B. HEXTER
President

LESTER P. AURBACH
Vice President

THEODORE T. QUINN
Editor

JAMES R. McCALLUM JR.
Associate Editor

WARREN W. FARR
H. S. McCLOUD
Editorial Advisors

WILLIAM V. LINAS
Production Director

E. J. HEXTER
Circulation Director

Address all communications to
THE REFRIGERATION
INDUSTRY

1240 Ontario Street
Cleveland 13, Ohio
Phone: Prospect 1251
Teletypewriter: CV-233

SALES OFFICES

CLEVELAND 13
1240 Ontario Street
L. L. OPPENHEIM

NEW YORK 18
19-25 W. 44th Street
Room 412
W. T. MOHRMAN

CHICAGO 1
64 E. Lake Street
Room 1013
SAM R. TRACY

LOS ANGELES 14
1250 Wilshire Boulevard
Room 403
FRED W. FRISENFELD



Published monthly by REFRIGERATION PUBLICATIONS, INC., an affiliate of INDUSTRIAL PUBLISHING CO., publishers of APPLIED HYDRAULICS, DIE CASTINGS, FLOW, INDUSTRY & WELDING, OCCUPATIONAL HAZARDS, and THE TAXICAB INDUSTRY. Member, Controlled Circulation Audit, Inc., and National Business Papers Association. Not responsible for unsolicited editorial material.
Subscription rates: United States and possessions—\$3.00 per year, \$5.00 for 2 years; Canada—\$4.00 per year, \$6.00 for 2 years; Foreign—\$5.00 per year. Single copy price, 30 cents. All subscriptions subject to individual acceptance by the publisher.

JANUARY, 1949

THE Refrigeration INDUSTRY

THE COVER . . . Al Weil, "Man of the Month" for January, reaches for the intercom unit on his desk which keeps him in constant touch with all departments of his closely knit organization. That's the portrait of partner Tom Reedy on the back wall. You'll find the full story of Al's outstanding success on page 36.

IN THIS ISSUE

FEATURES

WE CAN DEMAND	23
An editorial on Americanism	
DOWN THE HATCH!	26
THE "AIRTOPIA" HEAT PUMP	28
SERVICE ENGINEERS COMBINE CONVENTION WITH SHOW	30
THEY CAME—THEY SAW—THEY LEARNED	31
GOAL TO GO!	36

The story of The Refrigeration Industry's "Man of the Month" for January

DEPARTMENTS

USEFUL LITERATURE	46	NEW PRODUCTS	49
BTU's	24	PRACTICAL REFRIGERATION ENGINEERING MANUAL	65
CONTRACTOR ACTIVITIES	33	HERE'S HOW	69
REFRIGERATION INDUSTRY NEWS	39	OPPORTUNITIES	71
ABOUT PEOPLE	42	INDEX TO ADVERTISERS	72

The Ansul Research Staff

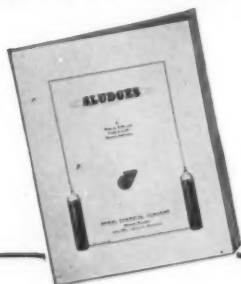
REPORTS ON:

SLUDGES

Approximately 90% of the sludges produced in refrigerating systems are due to moisture. The exact cause can always be determined by analysis, but the appearance of the sludge (see photos) is usually indicative of the cause.

SLUDGE DERIVED FROM MOISTURE—If water is present in a machine, the nature of the sludge depends upon the type of refrigerant and length of time the water is present. All refrigerants . . . sulfur dioxide, methyl chloride, Carrene and "Freon-12" . . . react with water to produce corrosion products characteristic of each. To prevent sludge, the amount of water present in a refrigerating system must be small enough to avoid ice separation and corrosion. For "Freon-12" and methyl chloride, a quantity of water approximately .05% by weight will cause corrosion; the limit is somewhat higher for sulfur dioxide.

SLUDGE DERIVED FROM OILS—Oil sludges are characterized by total or partial solubility in carbon tetrachloride, gasoline and similar solvents. It is generally presumed that oil sludges are due to two causes: (1) an interaction between the unsaturated constituents of the oil and the refrigerant; (2) a breakdown of the oil due to heat, oxidation, friction, etc.



SEND FOR "SLUDGES"
by
Ansul Research Staff

A detailed analysis of the refrigeration sludge problem.

ANSUL WHOLESALERS are ready and equipped to render an intelligent, co-operative service to refrigeration engineers and maintenance men on problems which arise from time-to-time in the operation of refrigerating systems.

FOR EXAMPLE:

The Ansul Research staff has developed a method for analysis of sludges. This analysis usually gives the answer as to the origin of the sludge. If you have a sludge problem, send a sample of the sludge with pertinent information to the Ansul Research Laboratory through your Ansul wholesaler.

An analysis report will be made for you without charge.

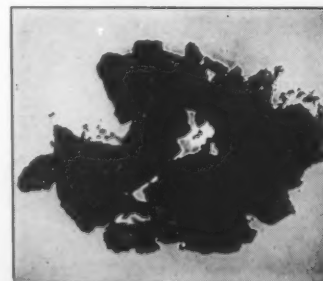
*REG. U. S. PAT. OFF.



GRANULAR SLUDGE . . . due to moisture



FLUID SLUDGE . . . due to oil



HARD SLUDGE . . . due to moisture and oil

ANSUL REFRIGERANTS ARE AVAILABLE AT LEADING WHOLESALERS EVERYWHERE

ANSUL CHEMICAL COMPANY

REFRIGERATION DIVISION, MARINETTE, WISCONSIN

DISTRIBUTORS FOR KINETIC'S "FREON-11," "FREON-12," "FREON-21," "FREON-22," "FREON-113" AND "FREON-114"



You can cut **REFRIGERATION COSTS**

**When Handling
CANS, CRATES, KEGS**

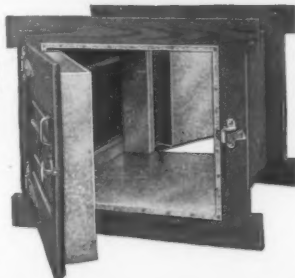
CAN AND CRATE PASSING DOOR

The Auto Close doors swing open readily and close automatically when the cold storage doors open. This checks the inrush of warm air and saves refrigeration. The door can be fitted into a conveyor system or used with its own roller conveyor.



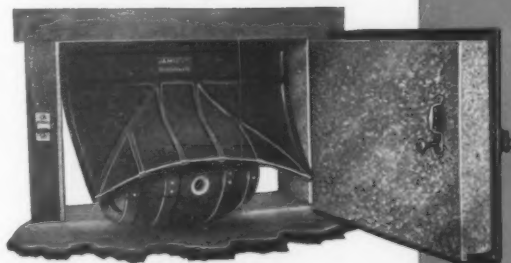
ICE CREAM CAN PASSING VESTIBULE

The vestibule is equipped with a cold storage door at each end. Maximum loss of cold air is limited to the volume of the vestibule because either door is always closed whether loading or unloading. Vestibule holds six to nine cans in various arrangements.



KEG PASSING DOOR

A flexible light weight insulating curtain of moulded material prevents the loss of cold air when the door is open. The movement of the key lifts the curtain without shock or abrasion as it passes. It immediately drops back in place and air movement is cut off.



These Jamison-Built Doors permit the speedy passing of cans, crates, boxes, packages or kegs in and out of the refrigerated space. Each of the methods illustrated is particularly well suited to the temperatures and type of container. The loss of cold air and the entry of warm air during the time containers are moved in and out of refrigerated storage rooms is held to a minimum. The resulting savings in refrigeration costs can be substantial.



Standard types of Jamison-Built doors are available for a wide range of temperatures and applications. For special requirements doors can be built to your specification regardless of size, character or duty.

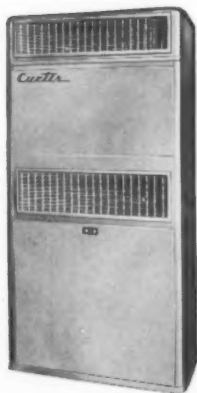
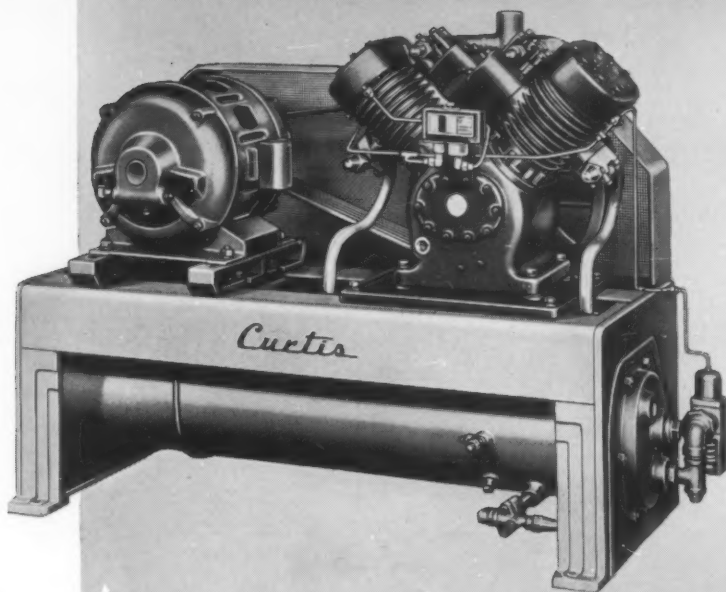
Write for new catalog that gives helpful information on cold storage door selection.

Jamison Cold Storage Door Co., Hagerstown, Maryland

The Oldest and Largest Builder of Cold Storage Doors in the World

Curtis

CONDENSING UNITS



Curtis Packaged Air Conditioning Units — 3 to 15 H. P.

A Sound Foundation For DEPENDABLE, EFFICIENT REFRIGERATION

The foundation for any successful refrigeration installation is the condensing unit... a vital reason why you should standardize on CURTIS. Curtis provides such time-tested engineering advantages as:

- Timken Bearings
- Extra large condensers
- Quiet operation
- Self oiling... Positive lubrication
- Slow operating speeds
- Precision construction throughout

It all adds up to a longer life of economical, trouble-free, low-cost performance. Write to CURTIS for complete information.

Curtis

REFRIGERATING MACHINE DIVISION

of Curtis Manufacturing Company

1915 Kienlen Avenue

St. Louis 20, Missouri

95 Years of Precision Manufacturing

R-49-1

Slash VALVE INVENTORY COSTS UP TO 900%



1 TON VALVE
(ACTUAL SIZE)

GENERAL CONTROLS engineering offers tremendous savings in inventory investment, stock space and handling costs.

For complete information on how to reduce your inventory costs with General Controls refrigeration valves request literature and see your refrigeration wholesaler.

← ← ← The new selective capacity cartridge provides instant sizing adjustment.

The unsurpassed control for refrigerants. V-200 Thermal Expansion Valves available in 1/2, 1, 2, and 5 ton body sizes and for Freon, Methyl Chloride, Sulphur Dioxide.

COMPARE THESE FACTS...

ORDINARY VALVES

Separate valves for each back pressure or suction temperature range.
Separate valves for each capacity size.

GENERAL CONTROLS V-200 VALVES

One valve for ALL back pressure or suction temperature ranges.
One valve with selective cartridge for full range of capacities.

54-1

For Full Capacity Range in each body size at all back pressures with any one refrigerant

ONLY *One* VALVE REQUIRED FOR COMPLETE INVENTORY

NATIONALLY DISTRIBUTED BY REFRIGERATION WHOLESALERS

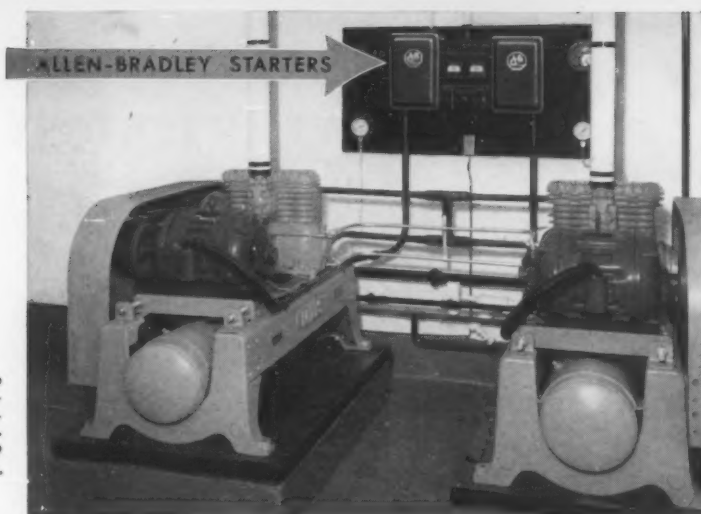


Cut Costs... Increase Profits with

GENERAL CONTROLS

Manufacturers of Automatic Pressure, Temperature & Flow Controls

FACTORY BRANCHES: Birmingham (3), Boston (16), Chicago (5), Cleveland (15), Dallas (2), Denver (10), Detroit (8), Glendale (1), Houston (2), Kansas City (2), New York (17), Philadelphia (40), Pittsburgh (22), San Francisco (7), Seattle (1), Oklahoma City (1) • Distributors in Principal Cities



An installation of two Mills refrigeration compressors, each equipped with an Allen-Bradley Bulletin 709 Solenoid Starter.

MILLS REFRIGERATION UNITS

equipped with

Trouble-Free Motor Controls



The white interiors of Bulletin 709 solenoid starter cabinets make wiring easy in dark basements.

ALLEN-BRADLEY STARTERS ARE TROUBLE FREE. Only one moving part. No pivots, pins, or bearings to corrode or stick . . . no jumpers to break. You install them . . . and forget them!

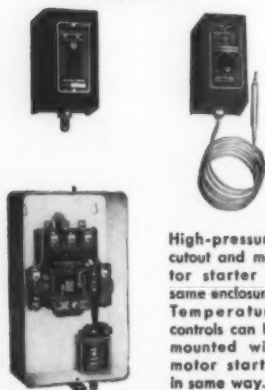
NO CONTACT MAINTENANCE. Allen-Bradley patented silver alloy contacts never need cleaning, filing, or dressing.

DEPENDABLE OVERLOAD RELAYS. Allen-Bradley thermal relays are accurate and dependable even after long service.

The A-B trademark stands for millions of trouble-free operations. Allen-Bradley Co., 1340 S. Second St., Milwaukee 4, Wisconsin.

ALLEN-BRADLEY AIR-CONDITIONING AND REFRIGERATION CONTROLS

PRESSURE AND TEMPERATURE CONTROLS

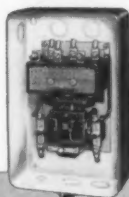


High-pressure cutout and motor starter in same enclosure. Temperature controls can be mounted with motor starter in same way.

MANUAL STARTER



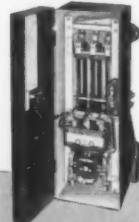
AUTOMATIC STARTER



COMBINATION STARTER



HEAVY COMPRESSION STARTER



ALLEN-BRADLEY

SOLENOID MOTOR CONTROL



Select the Correct

Century MOTOR

For Your Liquid Pumping and Refrigeration Requirements

- **Get Top Performance**
- **Long Motor Life**



Century's wide range of types, kinds and sizes assures motors that exactly meet the power requirements of your equipment.

Whether the application is a centrifugal pump or an unloaded compressor, deep well pump or compressors started under full load—there is a motor available in single phase, polyphase or direct current.

Drip-proof, splashproof, totally enclosed fan cooled and explosion-proof frames are available to protect the vital parts of the motor against any kind of hazardous atmosphere.

UNSEEN because they are sealed-in—many thousands of integral and fractional H. P. Century Hermetic Motors have been successfully serving the Refrigeration Industry for fifteen years.

Century builds a complete line of electric motors in a wide range of types and kinds, in sizes from 1/6 to 400 horsepower.

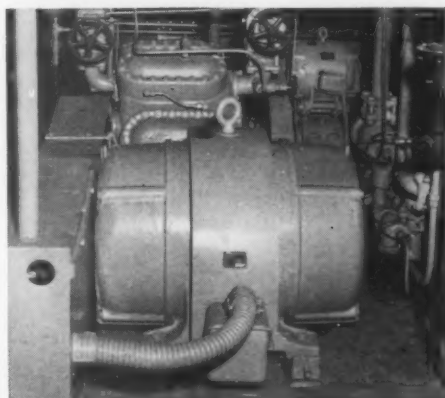
Specify Century motors for all your electric power requirements.



Popular types and ratings are generally available from factory and branch office stocks.



• 150 horsepower Century motor driving a water pump for a large central station.



• 50/25 horsepower Century splashproof motor driving a refrigeration compressor in a bottling plant.

-810

CENTURY ELECTRIC COMPANY • 1806 Pine St., Saint Louis 3, Missouri
Offices and Stock Points in Principal Cities

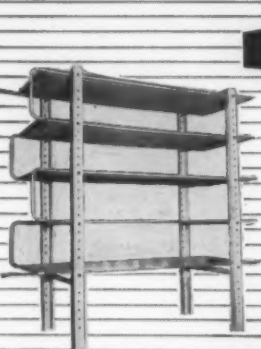
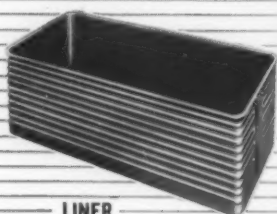


PLATE STAND



PACKAGE UNIT



LINER

KOLD-HOLD builds better plates for every application

There are two big reasons why you can count on the performance of Kold-Hold Hold-Over and evaporator plates to every refrigerating installation.

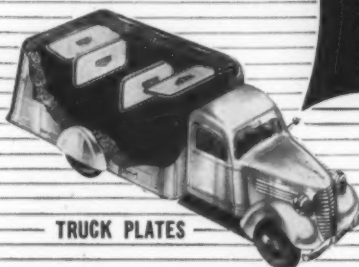
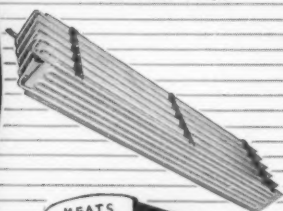
FIRST: They are designed and engineered primarily to refrigerate efficiently and economically.

SECOND: They are built with care and to quality standards which assures that each and every Kold-Hold plate does its designed job to the fullest degree of satisfaction. Before any plate leaves the factory it is pressure tested under water and completely dehydrated.

This combination of engineered design and controlled construction is your best guarantee of peak performance.

Would you like to know more about how Kold-Hold plates can be used for quick freezing, chilling and holding, short period cooling, or for "Hold-Over" truck refrigeration? Complete descriptive literature is yours free — write today!

HANGER BANK



TRUCK PLATES

CONVERSION UNIT



KOLD-HOLD

Jobbers in Principal Cities

PROCESSING

TRANSPORTATION

protects every step of the way

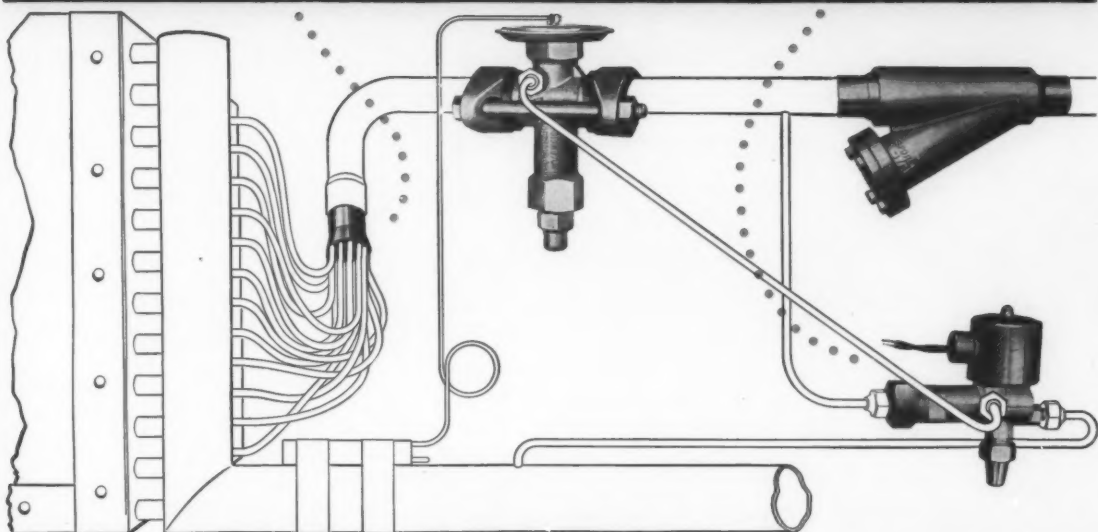
STORAGE

KOLD-HOLD MANUFACTURING COMPANY - 503 E. HAZEL ST., LANSING 4, MICHIGAN

SPORLAN AIR-CONDITIONING CONTROLS

combine

EFFICIENCY PEAK PERFORMANCE ECONOMY



REFRIGERANT DISTRIBUTORS

- Economical to Install
- Assures Equal Distribution
- Capacity Balanced to Load by Means of Interchangeable Nozzle
- Available as Separate Device to Permit Use of Standard Valves
- Provides Maximum Coil Efficiency

THERMOSTATIC EXPANSION VALVES

- Flare, Sweat or Flange Connections
 - All Parts Accessible for Cleaning or Inspection
 - From 1/2 to 50 Tons Freon
- The Only Thermostatic Expansion Valves with Selective Charges*

SOLENOID PILOT CONTROL

- Tighter Closing than Ordinary Solenoid Valves
- Economical to Install
- One Size Fits All Jobs
- Costs No More than a Ten Ton Solenoid Valve Regardless of Load
- Positive Liquid Line Shutoff

STRAINERS

- A Complete Line for All Purposes



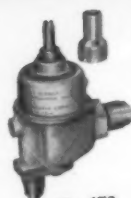
SPORLAN VALVE COMPANY

7525 SUSSEX AVENUE • ST. LOUIS 17, MISSOURI

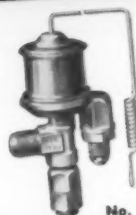
"DETROIT" REFRIGERATION ACCESSORIES

Assure Complete Satisfaction

EXPANSION VALVES — DISTRIBUTORS



No. 672
"Detroit" Automatic
Expansion Valve



No. 573
"Detroit" Thermostatic Expansion Valves



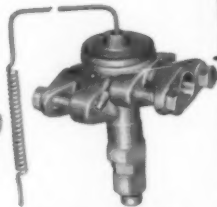
No. 673



No. 790
"Detroit"
Distributors



No. 899



No. 786-787-788
"Detroit" Thermostatic Expansion Valves

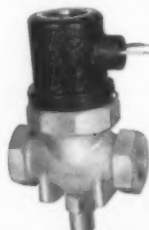
SOLENOID VALVES



No. 683-3



No. 681



No. 686

"Detroit" Solenoid Valves

Check

THESE IMPORTANT FEATURES

EXPANSION VALVES—DISTRIBUTORS

Complete range of capacities up to 20 tons Freon-12. Gas-charged power elements—quick response—prevent motor overload. Diaphragm and bellows types. Operating characteristics for all applications.

CAPACITIES—Freon 12

No. 672.....	.35 to 3.6 tons
No. 573.....	.5 tons
No. 673.....	1.2 to 3.6 tons
No. 899.....	1.6 to 6.0 tons
No. 786.....	.3 to 6 tons
No. 787.....	.6 to 11 tons
No. 788.....	.12 to 20 tons

(No. 899, 786, 787, and 788 have external equalizer connection.)

These are representative of the large number of valves in the "Detroit" line. Distributors are used with large valves to serve multiple refrigerant lines. No. 790 is available with flange or union connection, with from 2 to 18 passes.

SOLENOID VALVES

Wide range of sizes for liquid line, suction line and water service. "Detroit" Solenoid Valves are quiet, compact and powerful. They may be used with any liquid that will not attack brass.

CAPACITIES—Freon-12 (2 lb. pressure drop)

No. 683-3, orifice 1/4".....	1 1/4 tons
No. 683-3, orifice 3/8".....	.3 tons
No. 683-3, orifice 1/2".....	.3 1/2 tons
No. 681, orifice 3/8".....	.7 1/2 tons
No. 686, orifice 1/2".....	11 tons
No. 686, orifice 3/4".....	17 tons

All capacities are for liquid line.

No. 681 is pilot operated requiring a minimum pressure drop of only one psi on refrigerant to operate the piston. No. 686 is a heavy duty, large capacity pilot operated valve which requires a pressure drop of only 1 3/4 psi on refrigerant, 5 psi on water to operate the piston.

5128

DETROIT LUBRICATOR COMPANY

DIVISION OF AMERICAN RADIATOR & Standard Sanitary CORPORATION

GENERAL OFFICES:

5900 TRUMBULL AVENUE • DETROIT 8, MICHIGAN

Canadian Representatives—Railway and Engineering Specialists Limited, Montreal, Toronto, Winnipeg

Serving home and industry

AMERICAN STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILER • ROSS HEATER • TONAWANDA IRON



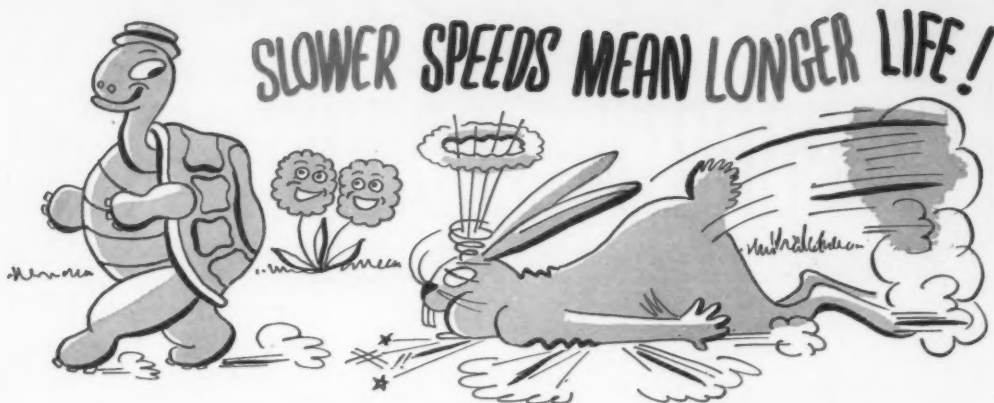
"DETROIT"

"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Float Valves and Oil Burner Accessories
"Detroit" Expansion Valves and Refrigeration Accessories
Stationary and Locomotive Lubricators

BRUNNER
SINCE 1906

REFRIGERATION helps you serve better

Memo to Shrewd Business Men



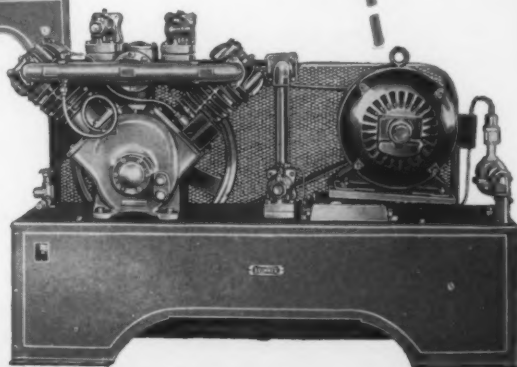
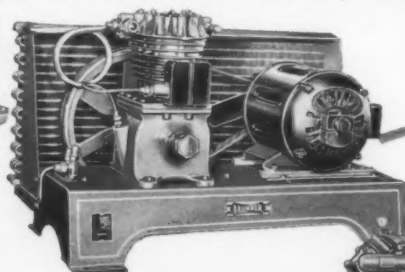
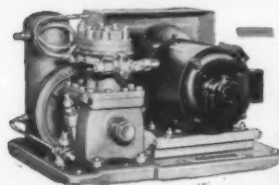
No fairy tale this: you use refrigeration units in your business only because they are essential to a profitable operation. Pump speeds, condensor tubes, suction areas, and other technical contributions to "slower speeds mean longer life" we'll leave to Brunner's factory representative to explain in detail.

Here is today's version: refrigeration units are too important for hurried selection. Slow up, take time to *compare* design and construc-

tion details. *Check* the experience of other users. Longer life comes with profitable, worry-free installations; prompt deliveries; long-lasting customer satisfaction. *Write us.* Spend a few minutes with Brunner's representative and know why plant capacities have been greatly increased.

BRUNNER MANUFACTURING CO.

Utica 1, New York, U. S. A.



BRUNNER
SINCE 1906

AIR AND WATER COOLED MODELS
1/4 HP. TO 25 HP.

JANUARY, 1949

13

The First Really New

EVAPORATIVE CONDENSER

by **KRAMER**

**Opens Many Opportunities
in the Small Tonnage Field**
Featuring . . .

- Small Capacities—2 to 8 tons
- Single or Multi-Circuits
- Stainless Steel Sump
- Extra Large Water Delivery
- Packless & Greaseless Pump
- Bare Tube Coils
- No Nozzles
- No Belts
- Low Cost
- For Freon, Methyl and Ammonia

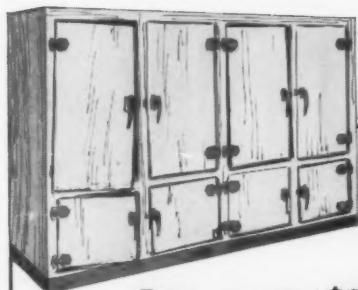
WRITE FOR BULLETIN R162B

KRAMER TRENTON CO.
Trenton 5, N. J.



There's *40% PROFIT FOR YOU in HARDWARE REPLACEMENT

***PLUS YOUR REGULAR TIME AND SERVICE CHARGE**



Earn up to \$24.64 on new hardware for this cabinet

A single cabinet like this runs into real money for you! Let's figure your hardware replacement profits on this one job. There are hundreds of opportunities like this in your community!

Hardware Needed	Retail Price
8 Locks No. 4722.....	\$24.00
8 Strikes No. 3843.....	8.00
16 Hinges No. 15345.....	29.60

Hardware costs customer.....\$61.60
Your cost (less 40%).....36.96

Your PROFIT on Hardware.....\$24.64

Plus REGULAR INSTALLATION CHARGE



PREFERRED for NEW EQUIPMENT

... PREFERRED FOR REPLACEMENT, TOO

Now you can give your service customers the identical lock preferred by leading makers for their best commercial cabinets. Available in a full range of sizes... all providing the exclusive, positive "living action" principle engineered by Grand Rapids Brass for lifetime performance. Equally handsome and sturdy are hinges by Grand Rapids Brass... made with self-lubricating Oilite bronze bearings and stainless steel pins. Get them from your jobber... he can supply everything you need, from massive walk-in hardware to the smaller sizes. Demand and get the genuine.

FREE — Ask Your Jobber

This manual tells how to sell and install replacement hardware. Full directions and detail drawings. If your jobber can't supply, write direct and give us his name.



Grand Rapids Brass Company

Division of CRAMPTON MANUFACTURING COMPANY
Grand Rapids 4, Michigan

Why will this
Marlo "water-miser"
serve you
so many years?

it's simple:



The exclusive Marlo Unidrive does two jobs with one motor, which powers both fan and pump.

This simple design increases efficiency... cuts operating cost... simplifies wiring... eliminates special extended-shaft motors and pumps... permits easy field replacement.

That's just one typical reason why many Marlo Evaporative Condensers and Cooling Towers are still faithfully saving up to 95% of normal water consumption and cost... after **10 years** of daily service.

For lasting economy specify...

***MARLO COOLING TOWERS
AND EVAPORATIVE CONDENSERS**

MARLO - HEAT
Since 1935 **TRANSFER**



Kroger Supermarket in St. Louis uses a CT-20 twenty ton Cooling Tower to handle condensing units for entire refrigeration system. Kroger is using these units in new and remodeled supermarkets throughout the Midwest Territory.

MARLO COIL CO. / ST. LOUIS 10, MO.

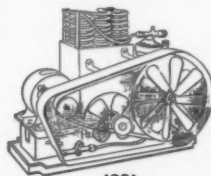
Freezing Facts by Super

Close-ups
On
Compactness

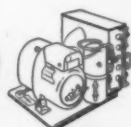


WE'VE COME a long way from the cumbersome radio set Mother had in the parlor. Persistent research and brilliant engineering have enabled radio makers to compress ample power and full tone into a compact, portable model no bigger than a box of candy and as handy as a wrist watch.

Servel engineers, too, have made great strides in reducing the size of commercial condensing units while adding new and im-



1921



1948

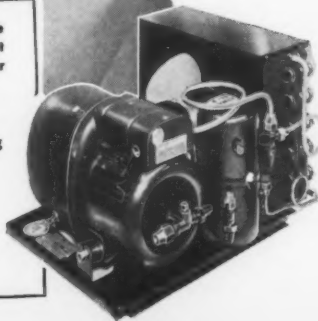
proved performance features. For example, an early vintage $\frac{1}{2}$ HP unit measured over 27" long, 18" wide, and 35" high. It tipped the scales at 225 pounds. But today's Servel Supermetic $\frac{1}{2}$ HP unit fits easily into a space approximately 17" long, 16" wide, and 11" high! Design improvements have reduced its weight to 90 pounds!

This modern condensing unit lasts longer, it is more dependable, maintenance costs are decidedly low. Higher grade bearing materials, "forced-feed" lubrication, and many other features contribute to the compactness and greater efficiency of the Supermetic. Servel's hermetic units are available in all sizes to fit every application. Send for free copy of illustrated folder, "Servel Supermetic." Address Servel, Inc., Division ER, 1812 Kentucky Ave., Evansville 20, Ind.

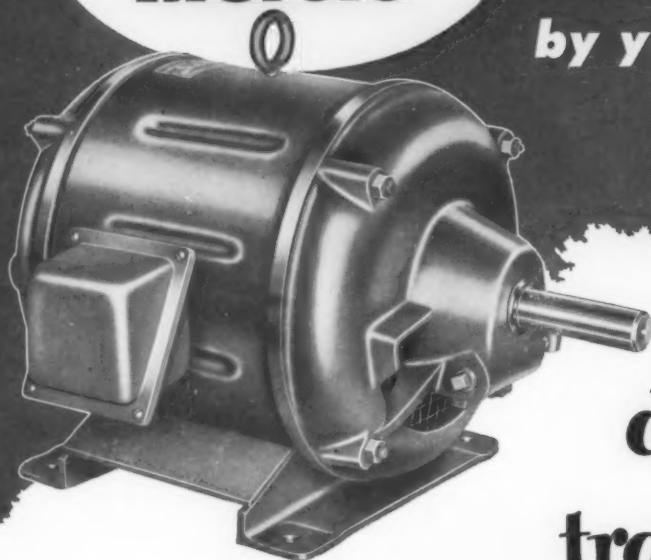
More than a hundred thousand satisfied users testify to the quality of Servel Supermetic units, the broadest and most versatile line of hermetically sealed units designed for every popular commercial application.

- | | | |
|-------------------|--------------------------|------------------------|
| 1. Store Fixtures | 4. Beverage Coolers | 8. Farm Freezers |
| 2. Milk Coolers | 5. Vending Machines | 9. Water Coolers |
| 3. Home Lockers | 6. Room Coolers | 10. Industrial Cooling |
| | 7. Vehicle Refrigeration | |

Servel
SUPERMETIC



Wagner STEEL-FRAME Motors



Proved
by years of service!

quiet...
dependable...
trouble-free!

Since 1930, when Wagner started manufacturing steel-frame drip-proof motors, they have been *proved*—by years of hard usage in industry after industry.

Today this time-tested design is available in poly-phase motors through 326 frame size. The motor frames are formed of heavy rolled steel, shaped to accurately center the stator core and to provide passages for adequate ventilation. An auxiliary fan draws in air through the openings in the front endplate, forces it through these passages and out through the endplate openings on the drive end.

Heat is effectively carried off from all parts of the motor.

These motors are available with either sleeve or ball bearings. They are completely drip-proof when mounted in the normal horizontal position, and by rotating the endplates are still drip-proof in the sidewall or ceiling horizontal positions.

Bulletins give full information on the complete line of Wagner Motors. Twenty-nine branches, located in principal cities, are ready to assist you whenever you have a motor problem. In addition, almost 500 authorized motor repair shops provide speedy, nationwide service facilities.

Wagner Electric Corporation

6442 PLYMOUTH AVE., ST. LOUIS 14, MO., U. S. A.



Consult Wagner Engineers on all Electric Motor Problems



• ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES • AUTOMOTIVE BRAKE PRODUCTS •

M49-2

new GR self-contained AIR CONDITIONERS

give you these

features that **SELL**

DIRECTIONAL DISCHARGE GRILLE All-aluminum grille can be easily adjusted to direct cooled air at various angles. Large blower capacity.

YEAR 'ROUND USE Provides summer cooling and dehumidification, all-year ventilation and filtration, and can be used for winter service with heating coil and humidifier.

EASY TO INSTALL, TO SERVICE Entirely self-contained, unit is easily installed, can be moved to new location with other fixtures. Servicing is simplified — all controls, valves and parts are readily accessible.

MANY ECONOMY FEATURES Has permanent, cleanable air filter — heavy-duty Lipman compressor that keeps working, gives more cooling per kilowatt of power — cleanable, counter-flow condenser to provide low operating pressure and high efficiency for low cooling water consumption.

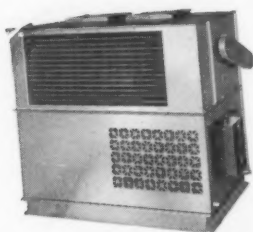
LOOKS WELL ANYWHERE Attractive cabinet has smooth, neutral finish, is easily cleaned — rust-resistant sheet steel construction — cabinet lined with 1/2-in. rigid sound deadening insulation.

CONVENIENT, CONCEALED CONTROLS Placed under hinged name plate on front of cabinet, convenient but hidden.

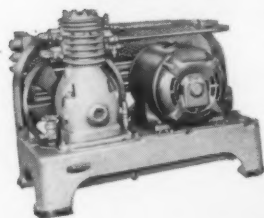
Send for literature on these new GR self-contained air conditioners. Ask also for full information on the complete General Refrigeration air conditioning and Lipman refrigeration lines — the advantages in handling them, the rich market potentialities. Write today to Dept. R12.



General Refrigeration unit air conditioners are available in two models — the 3-ton GR 312 and the 5-ton GR 520.



COMPLETE GR AIR CONDITIONING LINE includes the duct-type Model 10-4000 above, and the Model 301 condensing unit below.



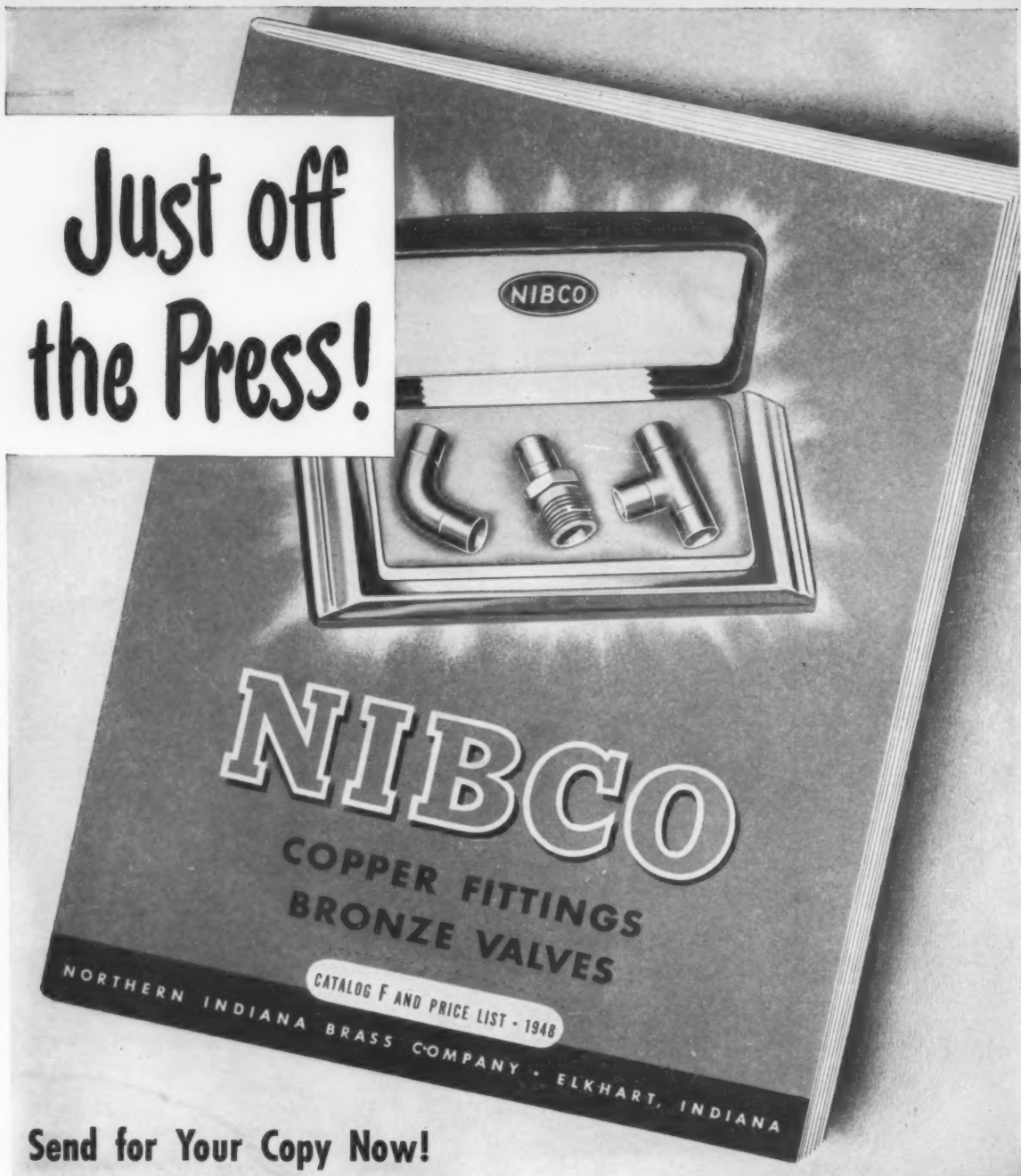
**GENERAL REFRIGERATION
DIVISION**



YATES-AMERICAN MACHINE CO.
Beloit, Wisconsin



Just off
the Press!



Send for Your Copy Now!

NORTHERN INDIANA BRASS CO.
114 Plum Street, Elkhart, Indiana

Without obligation to me please send a copy of your new catalog F.

Name _____

Address _____

City _____

State _____

Catalog F is a new manual of technical and selling information to aid in specifying and ordering the latest and best valves and fittings for copper plumbing. NIBCO Wrot Fittings — Cast Solder Fittings — Cast Drainage Fittings — Flared Tube Fittings — Copper Tube Valves and Refrigeration Fittings are illustrated, described and priced in this easy-to-use catalog. Mail coupon now for your copy, free and without obligation.

Carrier compressors keep oil from robbing refrigeration



ONCE oil gets into the coil with the refrigerant, it becomes a thief. It robs the refrigerant of its effectiveness and ups operating costs. The more oil in the coil—the greater the theft. That's not the kind of installation your customers want—and that's not the kind they get with Carrier refrigeration.

Most ordinary compressors get off to a good start, but bog down after a few months because of their inability to keep oil in its place. Carrier Compressors, however, deliver efficient refrigeration from the beginning and keep on delivering it year after year at low operating cost. Here's why: by a series of engineered steps, they keep oil in the crankcase where it belongs. An unusually large suction manifold, a 90° turn in the gas flow and an oil return check valve between the suction manifold and the crankcase are among the Carrier features that prevent oil from taking a "free ride" into the coil.

For best results, install Carrier balanced refrigeration. That's a Carrier Compressor and a Carrier Cold Diffuser. Designed and built with all the skill and experience that have made Carrier a leader in the field, they're perfect partners for delivering maximum refrigeration at minimum cost. They provide the standout refrigeration your customers want—and that leads to more jobs for you. Write for the Carrier Compressor Catalog CR240 or the Carrier Cold Diffuser Catalog CR241. Carrier Corporation, Syracuse, New York.

Carrier

AIR CONDITIONING • REFRIGERATION • INDUSTRIAL HEATING

FOR EXTRA PROFITS...

Switch to

PENN!

- Sell the plus values of PENN refrigeration controls ... the greater accuracy, longer life and more dependable operation ... plus values which mean fewer service calls, more customer satisfaction and extra profits for you!

Most versatile control in the air conditioning and refrigeration field is the PENN 270 series, the first and only load-carrying 2-pole switch. Available in "Single" temperature or low side pressure control and "Dual" control combining in one unit a temperature or low side pressure switch and high pressure safety cut-out.

Recent additions to the PENN complete line are magnetic starters, with relays that reset automatically after a temporary overload condition has corrected itself. This plus feature is especially desirable in commercial refrigeration where perishable goods might spoil if automatic resetting were not available. However, if the installation requires manual reset, a simple change in spring position converts the control. PENN magnetic starters are built in sizes 0, 1, and 1½.

Switch to PENN for the extra profit opportunity which comes with dependable control performance. Ask your wholesaler for information on PENN'S complete line of refrigeration controls or write to **Penn Electric Switch Co., Goshen, Indiana.** Export Division: 13 East 40th Street, New York 16, U. S. A. In Canada: Penn Controls Ltd., Toronto, Ontario.



Penn Series 221 Solenoid Valves perform dependably in a wide variety of refrigeration applications.

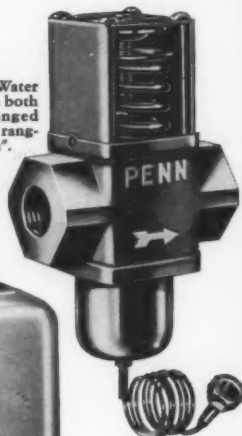


Penn 270 Series Controls incorporate 2-pole construction and direct-reading calibrated scale showing both cut-in and cut-out points.

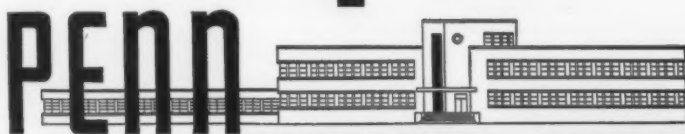


Penn Cooling Thermostat for applications where close and accurate temperature regulation are required.

Penn Series 246 Water Valves are built in both threaded and flanged styles and in sizes ranging from ¾" to 2½".



Penn Magnetic Starter provides both automatic and manual reset by easy change of spring position.



AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, PUMPS, AIR COMPRESSORS, ENGINES, GAS RANGES

WE CAN DEMAND

VAST parking lots in which thousands of workers' autos are parked are nothing particularly new or exciting to the average American. We see such parking facilities next to nearly every plant all over the country. If such parking space—or at least some parking place—is not provided, the worker goes where there IS a parking place provided. Nobody's going to prevent Joe American from driving his car to work. No sir, this is America.

I was particularly impressed by the hundreds of bicycles parked in lean-to sheds outside of plants in England, France and Italy. I was much impressed by the number of bicycles on the streets in those countries. On a week end, thousands of tandem bicycles are ridden by men and their girl friends, pumping, sweating and working to get out into the country for a small holiday. They're glad to work for THEIR holiday.

Step into a phone booth. Close the door and be in a soundproof, private chamber. Call your wife or your mother or your office. Phones here are everywhere. Just drop a nickel, dial and get your number. Want to call long distance? Sure thing. Just charge it to your bill and pay it at the end of the month. You'll get your party in the distant city without even taking the receiver from your ear. Get the wrong number occasionally? Have a slight delay? By gosh, the phone company can't do that to you. You'll write to your Congressman or something. No sir, you're an American. Where does the phone company get that stuff, anyhow? By golly, you'll see about and yakity, yak.

Let's make a phone call in Marseilles—or Rome—or even London. It's a production. It's an epoch. It's terrific. Want to talk to a nearby town—say 50 miles away? Two to three hour delay. Want to make a local call? On some blocks in a big European city there might be a store with one single phone. If the storekeeper happens to feel good he'll let you use his phone. Granting that you get your number by the fifth try, you can then talk to your wife or your girl or your office, right out in the middle of the room or—as so often happens—out on the sidewalk with all the traffic honking by.

We DEMAND good telephone service, our own automobiles, our own homes, our radios, electric lights, bathrooms, showers, supermarkets and baseball games. We have come to feel that it is the inalienable right of every American to have these and more—because he IS an American.

The French worker, the English worker, the Italian, the Belgian work longer hours, work harder and for a much lower standard of living and many fewer living comforts than we. They cannot DEMAND—they're glad if they just get food.

We shouldn't forget that the system which built our great country and our great way of life has yet to be equalled anywhere else. The soap box orator (the one with the holes in his pants) rants and raves and tells us how things could be improved, if only we followed the system used in certain foreign countries. That has, as yet, not been demonstrated. No one has seen, anywhere in this world, the equal of what we have here in America. Let's continue to demand it—but let's also protect it and work for it.

Irving B. Dexter

Publisher



Next All-Industry Show

THE Sixth All-Industry Refrigeration and Air Conditioning Exposition, sponsored by the Refrigeration Equipment Manufacturers Association, will be held in the Atlantic City Auditorium, Atlantic City, N. J., Nov. 14 through 18, 1949.

As in the past, the exposition will be open to all companies in the mechanical refrigeration and air conditioning industry. Three hotels (the Chelsea, the Ambassador and the Ritz-Carlton) have been set aside for refrigeration contractors and service engineers, and a total of more than 5000 rooms have been guaranteed for occupancy during the show.

The 1949 show will be a five-day affair, to allow more time for meetings of various industry associations. Show director is R. K. Hanson, 1107 Clark Bldg., Pittsburgh 22, Pa.

Selective Service And You

REFRIGERATION men we've talked to aren't expecting much hardship to be inflicted by the Selective Service Act, since this draft includes only those men up to 26 years of age. Few men in this age group, the feeling seems to be, are so skillful as to be irreplaceable, and requests for deferments are consequently being kept to a minimum. With veterans and married men automatically deferred, requests for deferments had better be good, or they'll meet with almost certain refusal.

Mills Man Suggests New Tax Report Plan

CURRENTLY receiving consideration by the U. S. Treasury Department is the thought that quarterly Withholding Tax Reports can be combined with Social Security Tax Forms, an idea not unfamiliar to Edward J. Gesick, treasurer of Mills Industries, Inc., Chicago. In an article which appeared in the December, 1947 issue of *The Controller*, Gesick suggested that "much of the detail in four quarterly reports to the Social Security Board could be eliminated. The procedure would be to put the information required by the Treasury Department under the Internal Revenue Codes for withholding taxes being collected by the employer as agent for the government for income tax purposes.

"The reporting of the amounts paid and the amounts withheld from employees for Social Security and with-

holding tax purposes," continued Gesick, "could be made on the present form W-2. Improvements in the type of paper and the farsightedness of the men in the Treasury Department in approving one-time carbon forms W-2 permits expansion of these forms so that copies could be sent to the Social Security Board and other authorities." Gesick contends that adoption of this plan would result in the annual savings of millions of dollars to both government and industry.

North African Ports Get Refrigeration

A SERIES of experiments in transporting fruit and fresh produce from North Africa to France has proved the value of refrigeration once again in terms of more palatable and less expensive food. Under test conditions, losses in produce were cut drastically, varying from 5 to 50% per hundred pounds. As a result of these experiments, conducted by the Institute of Industrial Refrigeration, the ports of Algiers and Oran are both being equipped with special refrigeration facilities. Those planned for Algiers will be able to handle four thousand tons of produce daily.

Freeze Your Suds

YOU needn't drink lukewarm beer the next time you go on a picnic. That's the good word from the General Electric Consumers Institute at Bridgeport, which has completed tests to determine how to keep beer cool and refreshing long after you take it off ice.

The answer: Freeze it in a home freezer, then wrap it in dry newspaper. The Institute says that beer handled this way will keep cold for seven and a half hours even on days when the temperature soars over 80 F. What's more, there's no loss in zip or flavor. The G-E tests were made on both cans and bottles of all sizes.

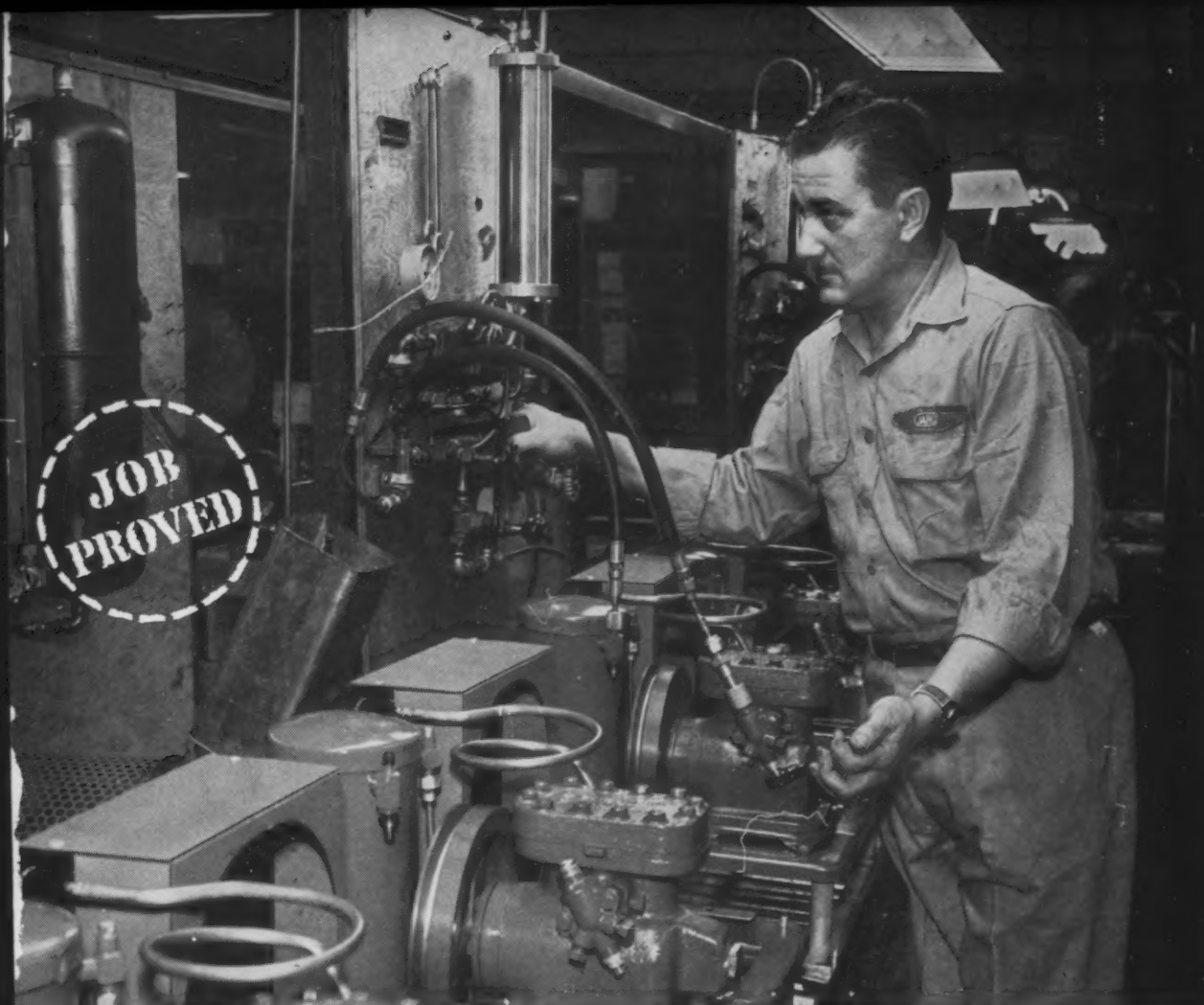
We know it isn't beer weather right now—but maybe having something like this to look forward to will help you get through the frigid days immediately ahead.

Glassed-In Vegetable Gardens

SOMETHING new has been added to fresh produce merchandising. It's the use of air conditioned, pre-packaged produce selling rooms by some of the larger midwestern grocery chains, to increase both the keeping qualities and the attractiveness of their fresh fruit and vegetable displays. Self-service, these departments in some of the glossier establishments have glass "walls" in front and on one side, the two other walls being those of the building itself.

Glass "walls" are particularly good, of course, because they let the customers see in before they actually enter the department. Temperature is held between 65 and 70 F by means of unit coolers mounted in opposite corners of the section. The "produce gardens" usually are located at the rear of the store and have a wide doorway that in most cases is left open so customers can get in and out easily.

One midwestern chain reported an increase in fresh goods sales from \$200 to \$2000 a week after three months' experience with the "produce garden" idea.



NO MORE WAX-SEPARATION PROBLEMS HERE!

Suniso Refrigeration Oils Are Used Right at the Start by Maker of Refrigeration Compressors

At one time, compressor oils posed a costly problem for an important manufacturer of refrigeration equipment. Wax separation took place at low temperatures. Other refiners' oils were tried, with only partial success. It was not until a year ago, when a Suniso Oil was adopted, that the problem was completely overcome.

Shown above is the filling of a

brand-new compressor with Suniso Refrigeration Oil. This is a familiar scene in plants making refrigeration and air-conditioning equipment. They probably use more Suniso Oils than all other brands combined.

This overwhelming preference is a direct result of qualities available only in the six Suniso grades. These oils are marked by extremely

low pour-points. In many cases their wax-separation points are many degrees below industry requirements. They have unusual resistance to chemical change when mixed with Freon, methyl or methylene chlorides, and other modern refrigerants.

For a copy of the 52-page illustrated bulletin "Lubrication of Refrigeration and Air-Conditioning Equipment," write to Dept. RI 1.

SUN OIL COMPANY • Philadelphia 3, Pa.

*In Canada: Sun Oil Company, Ltd.
Toronto and Montreal*

SUN PETROLEUM PRODUCTS

"JOB PROVED" IN EVERY INDUSTRY



Down the hatch!



Down the hatch of the world's largest tuna clipper, the "Scarlet Queen", go more than a million pounds of fish to be quick frozen and stored until the ship returns to port where the catch can be properly processed. Refrigeration is also used to preserve food for the 21-man crew. Live bait tanks are cooled, too.

REFRIGERATION equipment providing for the freezing and storage of more than a million pounds of fish is the key feature of the Scarlet Queen, world's largest and most elaborately equipped tuna clipper. In fact, the large low temperature wells of this 165-foot vessel are capable of holding a full 625 tons of tuna in frozen state from the time that

it is pulled from the ocean until the time it is delivered to the dock.

Originally a rescue tug in the last war, the Scarlet Queen was converted by the Tacoma Boatbuilding Co. at a total cost of \$600,000 into an ultra modern fishing boat complete with all the most modern electronic devices and machinery known to the fishing industry.

Into the powerfully strong wooden hull of the vessel were built 16 cargo wells, averaging 14 feet in depth and lined sides and bottom with refrigeration pipes of welded and galvanized steel. The huge refrigeration installation necessary to freeze the 1,250,000 pounds of fish is the largest of its kind ever installed in a tuna clipper. It is carried in a compact space aft of the galley in the main deck house.

Each of the deep freezing tanks is insulated with cork and emulsion, with the first three pairs of forward tanks lined with steel to permit carrying of Diesel fuel on the outward bound voyage and frozen fish on the inbound trip. Also refrigerated are three of the live bait tanks which can be used for carrying frozen tuna on the home bound voyage.

The entire refrigeration system was installed by the boatbuilding company experts. It consists of four Baker $7\frac{1}{4} \times 7\frac{1}{4}$ duplex compressors, each driven by a 50-hp General Electric motor.

The huge amount of electricity which powers every function on the vessel, except propulsion, is supplied by twin Diesel engines of 400 hp driving two 312 KVA generators. In addition, there are two more Diesels



Sixteen cargo wells like this one, lined on sides and bottom with refrigerant coils and insulated with cork, freeze and hold the catch of fish during the voyage.



Refrigerant controls are clearly shown in this view down the bottom shaft alley.



Part of the pumping system which provides brine for the refrigeration systems.

which drive two 60 kw generators and two motor generator sets of 15 kw and 115 kw respectively. Cutler-Hammer motor and generator controls are used on all electric installations.

To keep its crew of 21 fishermen well supplied with food during the vessel's long stay at sea in search for tuna, the galley of the *Scarlet Queen* is equipped with a Sterling Type DD refrigeration unit. Another Baker ice machine ($3\frac{1}{2} \times 3\frac{1}{2}$) driven by a 5 hp motor also is used in the galley to refrigerate a food storage room.

Refrigeration plays a most vital role in a large fishing vessel like the *Scarlet Queen*, since it enables the ship to remain at sea for as long a period of time as necessary to obtain a full cargo of frozen fish. With a total Diesel fuel capacity of 90,000 gallons, the vessel can remain at the fishing grounds for 200 days if necessary, or cover a cruising distance of 18,000 miles without a refill. Thus, the boat can travel clear across the Pacific ocean to Australia, if necessary, to obtain a full cargo. Plans also call for the ship to cruise north to Japan and buy tuna from Japanese fishermen, bringing the fish back to the States in its freezers.

Two of the four Baker $7\frac{1}{4} \times 7\frac{1}{4}$ duplex compressors which constitute the principal refrigeration system are shown here. Each is powered by a 50-hp electric motor.

Included in the equipment on the *Scarlet Queen* is a radar installation which scans the ocean day and night for tuna breaking the surface of the sea many miles away. Instead of searching the ocean from his exposed perch in the crow's nest atop the mainmast, the fisherman sits in a warm cabin watching the radar screen for distant schools of fish, much further away than human eyes could detect from the crow's nest. To further reduce the risk of a no-fish-catch, the *Scarlet Queen* carries a small hydro-

plane on its big top deck which can scout out over the ocean for fish beyond the range of the radar.

In the building of tuna clippers, very careful consideration must be given to the proper positioning and distribution of machinery. In fishing for tuna the fishermen stand with their fish poles on metal platforms slung over the aft guard-rails, with the platforms almost touching the surface of the water. Thus, the fishing vessel itself actually rides with

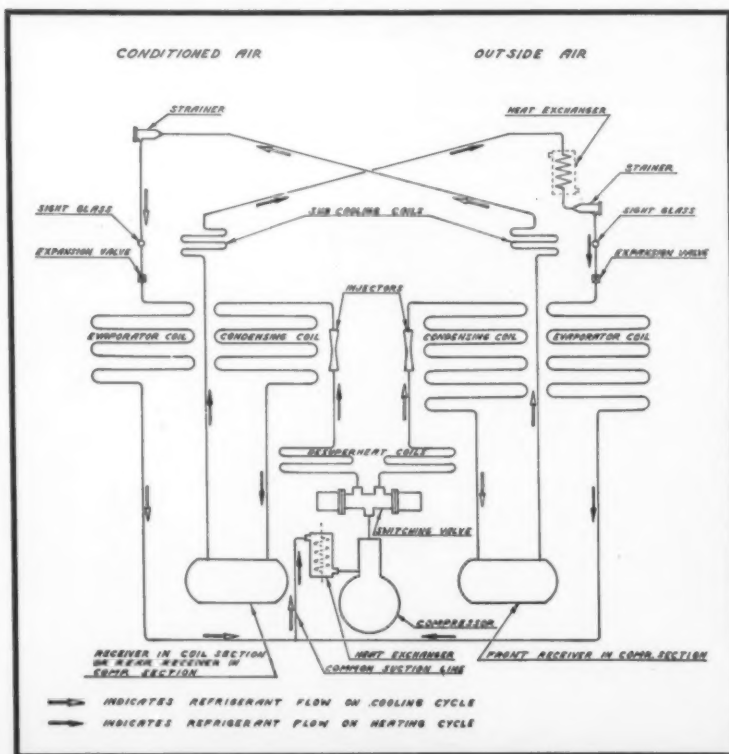
Continued on page 45





FIG. 1 — Neatness and compactness characterize the exterior design of the Airtopia heat pump unit, which is available in self-contained sizes using 3 and 5-hp compressors. Remote units are available in sizes ranging from 5 to 20-hp.

FIG. 2 — The Airtopia system's cycle of operation on both heating and cooling cycles is indicated in this elementary piping diagram for split circuit models with sub-cooling coils in blower section.



THE *Airtopia* HEAT PUMP

By A. Hanson
Drayer-Hanson, Inc.

"AIRTOTIA" is a year 'round air conditioning unit automatically providing all six functions of air conditioning—heating, cooling, humidification, dehumidification, filtering, and circulation. It employs the principle of the heat pump, and is manufactured by Drayer-Hanson, Inc., Los Angeles, Calif.

Over 250 Airtopia units have been installed in offices, theatres, restaur-

ants, motels, beauty shops, barber shops, dress shops, or wherever comfort in heating and cooling was required. Of course, there are units installed in homes but we have found the most ready sale to be for commercial applications.

Originally produced in self-contained sizes using 3, 5, 7½, or 10-hp compressors, Airtopia is now available in a wide range of sizes and arrangements up to 20 hp. We still manufacture the 3 and 5-hp unit in self-contained models using air as the source of heat. The general operation will be explained later in this article.

The remote units are available in 5, 7½, 10, 15, and 20-hp sizes, installed just as a standard air conditioning unit would be with a remote compressor. They are available using water or air as a source of heat. Air units are not recommended where the outside temperature falls below 30 F. Likewise, water units are not recommended where the water temperature falls below 45 F.

The remote type unit offers the advantages of flexibility to meet installation requirements as well as the fact that it permits the sale of our product to any contractor having a regular compressor franchise. Airtopia can be purchased just as any other air conditioning apparatus, and wherever heating and cooling is required Airtopia is an ideal unit to use, providing the heat loads for both cooling and heating are in balance.

We supply the automatic controls completely wired in a panel box plus the remote room thermostat, con-

ditioned air unit, source of heat section (which may be either air or water), refrigerant switching valve, receivers with inlet and outlet valves, thermo valve with liquid line filter, liquid sight glass, fan motors, and cleanable filters for conditioned air section. The air conditioning contractor only supplies his compressor and motor, inter-connecting piping and, of course, the Freon to charge the plant.

Basically, Airtopia is sold and sized just as any other air conditioning unit would be. The only qualification is that the heating and cooling load must be nearly in balance for an economical installation, although a greater cooling load would not be undesirable.

Fundamentally, the Airtopia system is nothing more than the ordinary refrigeration cycle as employed in any commercial refrigeration system. We switch the refrigerant through the use of an automatic switching valve developed by Drayer-Hanson, which is less cumbersome and complex than the equipment required for the usual air switching methods.

In addition, the following features have been incorporated to increase the overall capacity of the unit:

1. A liquid sub-cooling coil for

A report on the heat pump system being produced by Drayer-Hanson, Inc., Los Angeles, Calif.

PRODUCTION STATUS—

In regular production with more than 250 units already installed. Present delivery schedule is four weeks.

AVAILABILITY—

Sold to air conditioning contractors only through factory representatives.

HEAT SOURCE—

Outside air or water.

PRICE RANGE—

Upwards from \$2100, averaging about \$650 per ton of refrigeration capacity.

pre-heating fresh air make-up when operating on the heating cycle.

2. Jet type refrigerant condenser permitting a larger mass flow in the tubes with short circuits to avoid flooding of any part of the circuit with the condensate.

3. Simplified liquid distribution to all circuits.

4. Complete control system for automatic operation including time clock for controlling on and off cycle.

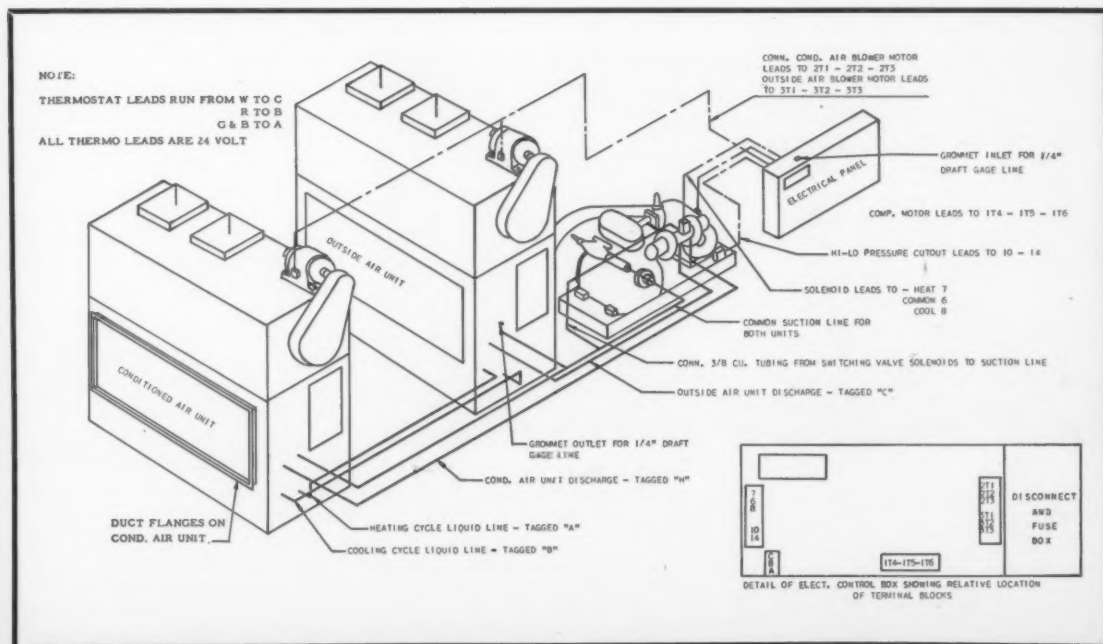
Although Airtopia is fully automatic, the use of solenoid valves, check valve, and hand shut off valve (excepting service valve) has been virtually eliminated.

The cycle of operation is shown in Figure 2, which illustrates the cycle for an air unit.

The hot discharge gas from the compressor is directed to the conditioned air coil, when heating, by

Continued on page 63

FIG. 3 — This assembly diagram for a split section Airtopia system shows the relationship of its various elements.



SERVICE ENGINEERS COMBINE CONVENTION WITH SHOW

NEXT STOP—BIRMINGHAM

THE fourth REMA-RSES refrigeration and air conditioning educational exhibit will be held in the City Auditorium, Birmingham, Ala., on Feb. 4, 5 and 6, REMA headquarters in Washington announces.

A poll of REMA firms, conducted prior to the Chicago exhibit, indicated that about 50 manufacturers would have educational booths at Birmingham. However, as a result of the success of the Chicago conference, a total considerably in excess of this number is anticipated.

Since this is the first opportunity that service engineers, contractors, and dealers in the south have had to attend an educational conference of this kind, a good attendance is expected. The exhibit is open to all branches of the refrigeration industry, and an interesting program of supplementary lectures and films is being developed to make the event one of real interest and importance to southern refrigeration men.

They'll Guide RSES in 1949



Photo by Irving Alter. Harry Alter Co.

These are the men who will direct the activities of the Refrigeration Service Engineers Society for the current year. They were elected officers and directors of the society at its 11th annual convention in Chicago. Front row: John Spence, chairman of the educational committee; M. R. Hanks, treasurer; J. D. Nall, 2nd vice president; Charles C. E. Harris, president; A. L. Robertson, 1st vice president; H. T. McDermott, secretary. Middle row: Paul Reed, educational director; C. W. Neisel, director; C. S. Tucker, director; J. M. Locke, director; J. L. Driskell, sergeant-at-arms; Bert Miller, director. Back row: Wm. Tierney, director; George Schuld, chairman of the safety committee; C. R. Visger, director; Floyd Lilley, director; Earl Yockey, director; J. V. Berger, director.

MORE than 1500 persons attended the First Midwestern Refrigeration and Air Conditioning Educational Exhibit in Chicago Nov. 19 through 22, sponsored by Refrigeration Equipment Manufacturers Association and held concurrently with the 11th annual convention of Refrigeration Service Engineers Society.

This was the third REMA-sponsored exhibit, and the attendance was the largest recorded at any of those staged thus far. Seventy-eight manufacturers had exhibits at the event. Sessions of the RSES meeting and hours during which exhibits were open were arranged so as to give those who came to Chicago a full three-day program, without conflicts.

A highlight of the opening RSES session was the presentation by Jack Glass, secretary of Refrigeration Equipment Wholesalers Association, of a check for \$3000 to RSES president William Marshall for the use of the society in its educational program. The money probably will be used for building up the society's library, according to Paul Reed, RSES educational director.

Educational sessions of the RSES meeting included talks on "Servicing Water Coolers" by Earl Jennings, service manager of Temprite Products Corp.; "Servicing Milk Coolers" by William Ural, engineer of Victor Products Corp.; "Refrigerant Cylinders" by N. C. Cooper of duPont

Continued on page 60

They CAME—They SAW—They LEARNED

The educational displays pictured below are typical of those which manufacturers of refrigerating and air conditioning equipment are bringing to industry men throughout the country in the program sponsored by Refrigeration Equipment Manufacturers Association, with Refrigeration Equipment Wholesalers Association and Refrigeration Service Engineers Society as cooperators. The Chicago exhibit, at which these photos were taken, had displays by 78 firms . . . all of them well worth seeing. These typical scenes, we hope, will give our readers some idea of the value and variety of the displays. (Photos are by Irving Alter.)



← This Penn Switch display panel showed how controls respond to temperature and pressure changes.



→ Cutaway models like these in the Westinghouse booth made it easy to understand how a unit works.



← Giant exploded views of seal construction were featured in the background panels of Chicago Seal's booth.



→ The background display in the Detroit Lubricator booth was a diagram of how gas charging works.



← Operating displays such as that holding the interest of these men drew attention to the Dole exhibit.



→ Copeland representatives showed guests how parts are finished. Note the cut-away compressor.



← A large "family size" catalog made information on Kerotest valves readily available to showgoers.



→ Ansul's panel comprised an illustrated lecture on the formation of solids in refrigeration systems.

IT'S READY!

Weatherhead's 1949

Refrigeration Catalog

The 1949 Weatherhead
Refrigeration Catalog
contains data on:

STRAINERS

VALVES

FITTINGS

DEHYDRATORS

MANIFOLD ASSEMBLIES

ACCESSORIES

This up-to-the-minute, 36-page catalog in color is a "must" for every design engineer, operating and service executive in the refrigeration industry. It contains detailed diagrammed sketches of the complete Weatherhead line of refrigeration equipment as well as a wealth of technical data. It's free—send for it today.

Look ahead with

Weatherhead

THE WEATHERHEAD COMPANY, CLEVELAND 8, OHIO

Plants at Cleveland, Ohio • Angola, Indiana
Columbia City, Indiana • St. Thomas, Ontario, Canada



Advertising Department
The Weatherhead Company
300 East 131st Street
Cleveland 8, Ohio

Gentlemen:

Kindly send me without charge your 1949 "LP-Gas Catalog".

Name.....

Company.....Title.....

City.....Zone.....State.....

CONTRACTORS

News • Activities • Plans

BECAUSE of the wide interest in the subjects covered at the recent national "Know-How Show-How" convention of the National Association of Refrigeration Contractors, **THE REFRIGERATION INDUSTRY** has decided to devote a major part of its next issue to a comprehensive report on the various panel discussions of merchandising methods and industry policies taken up at that meeting.

Included in next month's articles will be reports covering the NARC sessions on "Equipment Sales and Merchandising Methods", "Service and Management Methods", "Service Sales Merchandising Methods", "Licensing" and "Guarantees". Watch for this issue—it will be one you'll want to read . . . and keep.

Wheeler Named NARC Head; Discussions Are Spirited

THE third annual convention of the National Association of Refrigeration Contractors at the Hotel Sherman, Chicago, lived up to its advance billing as a "Know-How Show-How" affair in a two-day program jam-packed with talks and panel discussions covering topics that contractors had indicated were of top interest to them.

Ranging all the way from operating subjects such as "Equipment Sales and Merchandising Methods", "Service and Management Methods", "Service Sales Merchandising Methods" and "Finding, Hiring, Training and Compensating Salesmen" to such policy subjects as "Guarantees" and "Licensing", the meeting offered an abundance of down-to-earth information that contractors should find important in coping with their everyday selling and operating problems.

Credit for developing the program goes to Albert G. Weil of Chicago, program chairman, H. E. Wheeler, president of the Refrigeration Contractors Association of Chicago, which group was host to the meeting, and E. S. Wright, retiring president of NARC.

In the "Know-How Show-How" panels on operating methods, the contractors were addressed by some

of the best informed men in both their own ranks and those of equipment manufacturers, and the discussions were kept on the operations plane—with speakers discussing methods which had worked out successful in actual, everyday practice.

For the controversial questions of licensing and guarantees, representatives of manufacturers, wholesalers, industry associations, local regulatory groups, and contractor repre-

sentatives spoke, so that the discussions of these topics were unusually well-rounded. After each principal topic had been discussed from various angles by the panel members, the subjects were opened for general discussions from the floor, and in most instances spirited response by contractors indicated a real interest in the matters under consideration.

Space does not permit any but a limited presentation of the various topics presented at the meeting, but in our next issue many of the papers will be published in detail, together with the high points of the question-and-answer periods which followed each panel period.

In their business sessions, NARC members elected officers and directors for the coming year and took other action as follows:

Decided to hold their 1949 convention (the fourth) in Atlantic City, in conjunction with the 6th All-Industry Show.

Decided to move the national headquarters office from Cleveland to Chicago, as a more convenient and central location.

Officers, elected by the directors, are:

President, H. C. Wheeler, Air Comfort Corp., Chicago; first vice president, R. W. Noll, Commercial Refrigeration Co., Los Angeles; second vice president, F. J. Zoppel, Columbus Refrigeration Co., Columbus, Ohio; recording secretary, Nathan Edelstein, Refrigeration & Air Conditioning Guild, Brooklyn; treasurer, A. M. Palen, Palen Refrigeration Service, St. Paul; sergeant-at-arms,



New officers and directors of the National Association of Refrigeration Contractors, elected during the group's third annual convention in Chicago, face the camera following their election. Seated, in the usual order, are: Ralph W. Lampie, sergeant-at-arms; Ferd Zoppel, 2nd vice president; Hal Wheeler, president; R. W. Noll, 1st vice president; Art Palen, treasurer; Nathan Edelstein, secretary. Standing, also from left to right, are: E. C. Newton; Joe Helminak, who recently retired as executive vice president; Ed Wright, retiring president; Warren Farr, former president; Ted Rostock; and James Terry, who was The Refrigeration Industry's "Man of the Month" for November. All except Helminak are directors of NARC.

"Know-How Show-How" In Action



Interest invariably rose to a high pitch during the open forum periods which followed each of the panel discussions. Here Art Palen, treasurer of NARC, poses a pertinent question for a member of one of the discussion panels.



Drawing for the door prizes which were offered to stimulate attendance at the meetings was done by Mrs. H. W. Goodhart of Premier Co., Baltimore, Md. With her on the platform are L. C. Anderson, City & Suburban Refrigeration, Chicago; Walter McCarty, McCarty Bros., Chicago; Al Weil, Refrigeration Maintenance Corp., Chicago; and H. E. Wheeler, Air Comfort Corp., Chicago, new president of NARC.



Photos by Irving Alter, Harry Alter Co.
Manufacturers mixed with contractors at the NARC luncheon. Seated around this table are (clockwise from left): I. J. Kristufek, Talbert-Thomas Co., Chicago; George B. Vermilye, Ansul Chemical Co.; A. L. Baker, Alco Valve Co.; Harry Bransky, Bransky Refrigeration Co., Chicago; E. C. Newton, Engineering & Refrigeration, Inc., Jersey City, N. J.; W. M. Prack, Refrigeration Maintenance Corp., Chicago; R. J. Wischusen, Engineering & Refrigeration, Inc.; S. C. Filippone, Filippone Refrigeration Co., Jersey City, N. J.; G. J. Feasler, Bader's Sales & Service, Inc., New Brunswick, N. J.

Ralph W. Lampie, Lampie Refrigeration Service, Richmond, Va.

Directors are Warren W. Farr, Refrigeration Maintenance Corp., Cleveland; J. H. Lessard, Automatic Refrigeration Co., Seattle; T. R. Rostock, Arcticaire, Kansas City; E. C. Newton, Engineering & Refrigeration, Inc., Jersey City; James Terry, Dresco Refrigeration Co., Detroit.

Serving with the officers and directors is E. S. Wright, as immediate past president.

The hottest topics, naturally, were those having to do with licensing of contractors and with guarantees on new equipment. Both of these subjects brought forth a great deal of comment from both panel speakers and members.

HELMINAK RESIGNS

J. J. Helminak has resigned as executive vice president of the National Association of Refrigeration Contractors.

This resignation came as a result of moving the national office from Cleveland to 228 North LaSalle St., Chicago. The directors have not as yet announced a successor. Miss Edna Berggren will act as executive secretary in the new national office.

In selecting this new location, the directors feel that Chicago is more centrally located and is the ideal place for the national office.

Mr. Helminak will continue to make his home at 21401 South Lake Shore Blvd., Euclid 19, Ohio.

DETROIT CONTRACTOR COMMITTEES NAMED

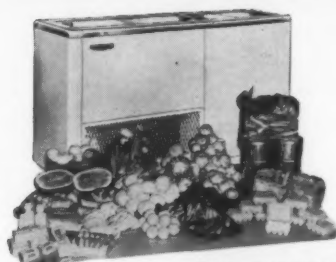
Appointment of committees to serve the Refrigeration Contractors Association of Detroit during the coming year have been made by president George C. Murphree. Membership of the committees include:

Finance: William Mercier, chairman; Ernest B. Downer, Charles Purdie. Membership: Stewart S. Krause, chairman; Michael G. Mak-sym. Advertising: Charles Purdie, chairman; Alexander S. McGhie. Ethics and grievance: Russell Tudhope, chairman; Ernest B. Downer. License and code: Victor M. Fabian, chairman; John Duncan, Charles Petros. Labor: George F. Lynch, chairman; Alfred Ellerbusch, William G. Euth. Program: James Terry, chairman; Alvin G. Weber, Joseph Clark. Reference and arbitration: Ben G. Hyatt, chairman; Henry Abel, Matt Forsyth.

Artkraft

Artkraft^{*}

SPECIALTY LINE OF REFRIGERATION PRODUCTS



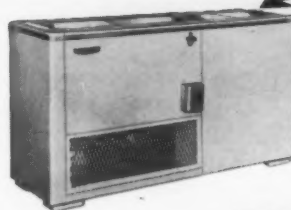
FARM GIANT

Utility food refrigerator, produce holder and milk cooler. 16 cu. ft. Cools 20 gal. milk. Moist cold refrigeration.



BEV-ETTE

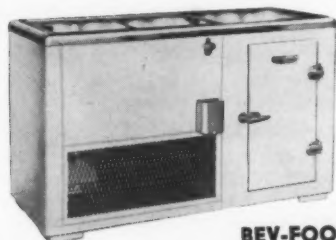
The PERSONAL REFRIGERATOR designed especially for executive and professional offices. Richly finished in brown. LOWBOY Jr. Model 35 all white in the same size cabinet as the BEV-ETTE.



BEV-GIANT

A mammoth bottle cooler that can be operated wet or dry.

CAPACITY
22 CASES
528 BOTTLES



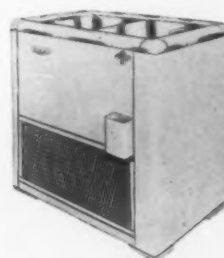
BEV-FOOD

The only combination beverage and food cooler—can be operated wet or dry.



LOW-BOY

Where kitchen space is at a premium, the LOW-BOY TABL-TOP does double duty. It serves as a work table as well as a full-size 7½ cu. ft. refrigerator. Available in standard model No. 800 and Deluxe model No. 700, with frozen storage and moist cold compartments.



BEV-COOLER

A bottle cooler that can be operated either wet or dry.

Artkraft^{*}

MANUFACTURING CORPORATION

300 Kibby Street

Lima, Ohio, U. S. A.

NATIONAL SALES OFFICE

648 MAIN STREET - CINCINNATI, OHIO

THIS COUPON FOR YOUR CONVENIENCE

Artkraft^{*}

MANUFACTURING CORPORATION

300 Kibby St.

Lima, Ohio, U.S.A.

() Please send full details on Artkraft^{*} specialty line of refrigeration products.

Name.....

Firm.....

Street.....

City.....

**SIGNS
OF
LONG
LIFE**



QUALITY PRODUCTS FOR OVER A QUARTER CENTURY

^{*}Trademark Reg. U.S. Pat. Off.

JANUARY, 1949

35

THE
REFRIGERATION INDUSTRY'S
MAN OF THE MONTH

Goal to G

Knowing where he is going is just as important as knowing how to get there. And on the basis of these two guiding principles, Al Weil has made his firm the most efficient, and most progressive business in the industry.

Al inspects one of the "custom-tailored" water coolers which his firm produces for the coaches and engine cabs of railroad trains as it comes off the production line. Cooling units for photographic processing also are made on this basis.

This sand blasting machine is used to remove foreign materials from such parts as crankcases, connecting rods, and eccentrics, and to bring a spotlessly clean surface to the metal.

SET your sights on a specific goal. Then when you attain that goal, raise your sights a bit higher and go gunning for another one.

This step-by-step plan for business progress is the keynote of the organizational efficiency which has spelled success for Albert G. Weil, boss man of Chicago's versatile and enterprising Refrigeration Maintenance Corp. and its merchandising mate, Talbert-Thomas Co.

Expounding somewhat of a fatalistic philosophy, Al expresses the belief that the course which any business firm pursues toward success or failure is determined to a certain extent, by circumstance. But Al isn't the kind of a guy to stand idly by and

let circumstance do all the work. Rather, he's a great one for stepping right up and giving old man Destiny a gentle but decisive shove in the right direction.

So, at the outset of each new year, Al goes into a huddle with his administrative staff to review the progress and accomplishments of the year past and to lay pointed plans for the year ahead. Thus, while the nature and scope of the goal is constantly changing, the goal itself is always there. And that, Al emphasizes, is the really important point.

That same type of careful planning has been a characteristic of the Refrigeration Maintenance organization ever since that day in February, 1930,

A corner of Remcor's service dispatching department. The worker in the background is inserting a message into a pneumatic tube which delivers it to . . .

ant to Al Weil as knowing where he's been,
 iples he has built up one of the soundest,
 sses in the refrigeration contracting field

when Al entered into partnership with Thomas J. Reedy to operate an independent service business under the name of Refrigeration Maintenance Co.

It wasn't a particularly auspicious beginning. The material assets which each man was able to contribute to the organization were mighty meagre, consisting only of a car and a kit of tools apiece. Between them they were able to scrape up about \$50 in cash. By far their biggest asset, as later events convincingly proved, was the acumen, the ability, and the enterprise which they both possessed.

Al first entered the refrigeration business in the spring of 1928 when he went to work for Absopure Re-

frigeration Co. as service dispatcher. After several months in this capacity, supervision of the company's parts stock room was added to his duties.

At the end of 1929, when Universal Cooler Corp. bought out Absopure and that company's Chicago office was closed, Al was given the job of collecting all outstanding accounts. Some equipment adjustments were necessary on these accounts, and Tom Reedy, who had handled this sort of work for Absopure before its sale, continued to do it, working in close association with Al. The acquaintance thus formed by these two young men was destined to ripen into a lifelong friendship and business association.

It was in January of 1930 that Al

Commercial refrigeration equipment of all types is attractively arrayed in the showroom of Talbert-Thomas Co., which handles the merchandising end of Al's varied activities,

and Tom decided to take a fling at the independent service business, and the following month they actively formed their partnership.

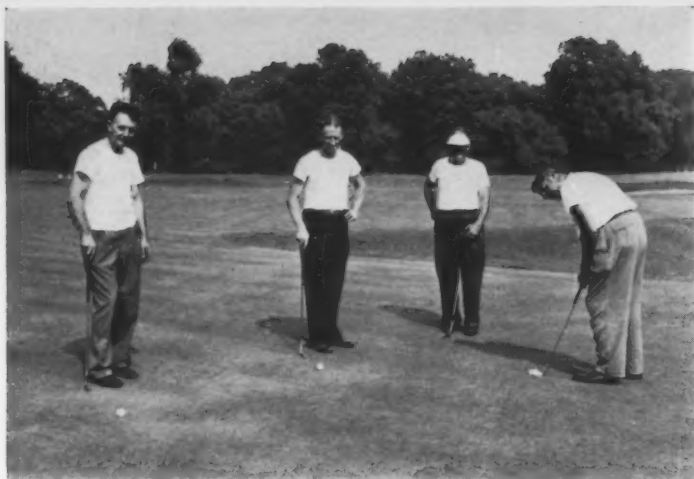
Reedy at this time was 24 years old, while Al was 22. Al had acquired an active interest in refrigeration and a considerable store of service knowl-

This automatic precision surface grinder is used to renew the entire surface of valve plates and other machine parts, which are then hand polished for a super-smooth finish.



... the service record department in another part of the building. Here complete and detailed information is compiled on each service call received.





Al lines up a crucial putt during a golf tourney sponsored by the Chicago contractor's association as business associates Eddie Fitzgerald, Red Prack, and I. J. Kristufek stand by awaiting their turn to hole out.

edge through his work and study while with Absopure, and this knowledge was now substantially supplemented through his contact with Reedy, who was not only an experienced serviceman but also a good teacher.

The two men used the old Absopure accounts as the foundation for the building of their own business. To minimize their overhead they utilized the office space of M. G. Schwab, who operated a soft drink distributorship at 23 W. Kinzie St. Schwab, a longtime friend of the Weil family, also made available to the two boys the services of his secretary and his telephone. His sound judgment and sage business counsel proved an invaluable aid to Al and Tom during the formative years of their rising young company.

An 8 x 8-foot space in the basement of the building in which Schwab's office was located served as the first service shop of Refrigeration Maintenance Co. Sometime later the firm's expanding shop facilities were moved to the second floor of the building next door.

So rapidly did the new company's business develop that within a couple of months of its founding Al and Tom were forced to hire a service man to help them handle their mounting number of calls. This was the start of their present expansive organization.

Later on during that first year the

boys hired W. M. "Red" Prack, who had been a serviceman with Zerozone, on a temporary basis to help out with the overhaul of a multiple installation in an apartment house. The job proved anything but temporary, for Prack is still with the firm today, serving now as vice president and manager of operations.

The following year Schwab moved his offices to the North Pier Terminal Building, and Al and Tom went along. They still shared Schwab's office space, but now they had progressed to the point where they could afford to hire their own office help. Better still, they now had about 2500 sq. ft. of space available for their service shop and stock room. This location proved so satisfactory that they remained there until 1938, taking over

additional space in the building as it was required.

As early as 1931, however, their business was expanding so rapidly that a change in the firm's organizational structure was deemed advisable, so in November of that year the company was formally incorporated. Al and Tom flipped a coin to determine how they would divide the official duties of the new corporation. Al won, so he assumed the title of president, while Tom settled for the combined functions of secretary and treasurer.

With this change, Al began to devote himself increasingly to the administrative side of the business. In order to better prepare himself for his new responsibilities he took additional night courses in accounting, business law, and allied subjects at Northwestern University's school of commerce.

By 1935 the two partners had progressed sufficiently, both individually and corporately, so that they felt prepared to embark on an added venture. They organized North Town Refrigeration Corp., located it in a substantial section of Chicago's "North Side," and acquired for it the franchise to service Frigidaire equipment in the North Side area. This new corporation also engaged in the sale and service of major appliances.

Continued on page 52



Al and Dorothy Weil have been taking trips together ever since their honeymoon cruise to the Caribbean some 10 years ago. Here they pose aboard their trusty steeds during last winter's vacation on an Arizona ranch.

News

COOLERATOR WIDENS APPLIANCE LINE; ADDS RANGES

Coolerator Co. has announced the broadening of its appliance manufacturing activities with the addition of three models of electric ranges to its long established line of household refrigerators and freezers.

Coolerator products for 1949 include, in addition to the ranges, four refrigerator models and two freezers, one intended primarily for commercial use.

This commercial freezer, known as Model FG-161, is equipped with two "Thermo-Pane" insulated glass sliding doors permitting full visibility of the contents at all time. These doors are removable for easy loading. Storage space for 563 to 600 pounds of frozen food is provided. Use of Freon-22 permits installation of 1/4-hp hermetic compressor with fan cooled condenser. Insulation is 5 inches of pressure packed "Pneupro". Overall dimensions are 30 3/4 inches wide, 72 inches long, and 38 inches high.

The other freezer model in the line is a "family size" unit with a capacity of 15.1 cu. ft. It has same dimensions and mechanical features as the commercial unit, except for the top, which is fitted with a conventional lid mounted on counter-balanced hinges.

RANCO HEAD NAMED TO RESEARCH GROUP

E. C. Raney, president of Ranco, Inc., was elected to the executive committee of the Ohio State University Research Foundation when the Foundation's board of directors held its annual meeting at Ohio State University recently. Raney has served on the foundation since March, 1948, when he was appointed an alumni member.

FIRE DESTROYS SUNROC WAREHOUSE

Fire of unknown origin destroyed a warehouse and for a time threatened the main plant of Sunroc Refrigeration Co., Glen Riddle, Pa. Efforts of 12 fire companies confined the blaze to the warehouse, although utility lines servicing the four-story main plant building were damaged. Water cooler production was interrupted only briefly in order to repair the power lines.

A substantial portion of the warehouse stock were coolers belonging to a major Sunroc customer and warehoused under contract; the rest of the merchandise was Sunroc property. Both parts and finished stock were included in the materials destroyed. The company plans erection of a new modern warehouse to replace the one burned out.

FREEZER SALES UP 31% IN SEPTEMBER

Sales of home and farm freezers for September of 1948 were up 31% over those for August, on the basis of reports by 34 manufacturers to the home and farm freezer section of National Electrical Manufacturers Association. September sales totaled 45,733 units against 34,448 in August.

For the first nine months of 1948, freezer sales totaled 363,132 units. Those in the 7 to 9 cu. ft. capacity led the sales by sizes.

PRICES ON FREON 11 REDUCED BY KINETIC

Kinetic Chemicals, Inc., has announced a reduction in prices for "Freon 11" fluorinated refrigerant ranging from nearly 2% to a little less than 5%, depending upon container sizes. The new prices were effective on shipments made on or after November 26.

Owing to wider use of "Freon 11" by the refrigeration, air-conditioning, and other industries, the company said, it has been found possible to pass on the benefits of operating economies resulting from increased production.

"Freon 11" is used principally in industrial refrigerating equipment, in central-station air-conditioning systems and as the propellant for insecticides in aerosol bombs.

BONNEVILLE HEADS ACRMA SECTION ON ROOM COOLERS

E. A. Bonneville, sales manager of the room air conditioner division of Fedders-Quigan Corp., Buffalo, was elected chairman of the room air conditioner section of Air Conditioning & Refrigeration Machinery Association at the recent general meeting of ACRMA in Hot Springs, Va. The section plans a broad program of engineering, marketing and other activities.

UNITED REFRIG. CO. MOVES OFFICES TO HUDSON, WIS.

Sales and general offices of United Refrigerator Co. have been moved from 350 Robert St., St. Paul, into new quarters in the factory at Hudson, Wis. The Hudson plant has been greatly enlarged and company officials are readying announcement plans for 1949.

They plan to carry word to the trade in magazine advertising showing new improved equipment and additions to their line. They will continue to offer bottle coolers, beer dispensers, ice cube makers, reach-in refrigerators, freezers and walk-ins as well as some new units not previously manufactured.

All correspondences should be directed to United Refrigerator Co., Hudson, Wis.

WILSON SET FOR OUTPUT AFTER FIRE

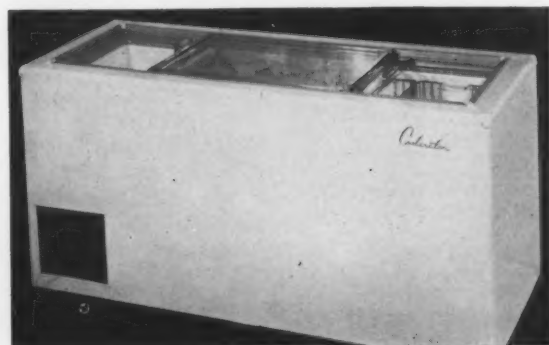
J. E. Wilson, president of Wilson Cabinet Co., Inc., Smyrna, Del., has announced that full insurance settlement has been made covering the large loss the company sustained when its main assembly plant and administrative offices were destroyed by fire in July.

Reconstruction and rebuilding is being pushed and new production facilities are rapidly nearing completion.

Production of their full line of refrigeration products was scheduled to start Dec. 15.

REMA CHANGES ADDRESS, PHONE

Refrigeration Equipment Manufacturers' Association has announced a change of address for its offices to 1346 Connecticut Ave., Washington 6, D. C. The telephone number is North 1059. W. Vernon Brumbaugh, executive secretary, and George E. Mills, public relations director, will be headquartered there.



Designed primarily for commercial purposes, this new Coolerator freezer has a capacity of 16.1 cu.ft., full visibility, and a divided interior.

TRAINEES AT DUNWOODY INSTITUTE



If you're looking for help in the air conditioning field, here's a ray of hope for you. These students in the air conditioning department at Dunwoody Memorial Institute, Minneapolis, Minn., comprise an important segment of the 5,790 students who have received trade training there during the past year. The Dunwoody school is a non-profit, tax exempt institution, a gift to the residents of the state, whose buildings, equipment and training facilities represent an investment of more than one and a quarter million dollars.

FOREIGN STUDENT TRAINING STARTED BY WORTHINGTON

About 25 students from opposite ends of the earth have gathered at Worthington Pump and Machinery Corporation's Harrison, N. J. Works to embark on a six-months training program.

This International Student Training Program is part of Worthington's effort to create and maintain harmonious trade relations with foreign countries, and is open by invitation to those men from abroad who have special qualifications along mechanical and engineering lines.

CUSTOMER SERVICE DEPT. FOR BINKS

Binks Mfg. Co., Chicago, has set up a customer service department to facilitate courteous and prompt attention to all inquiries. The new department, which has been established as an independent unit, is located adjacent to the order and shipping departments and has special telegraph machines and phone equipment to enable the rapid handling of customer requests.

VIRGINIA SMELTING N.Y. OFFICE MOVED

The New York offices of Virginia Smelting Company have been moved from 76 Beaver St. to new, larger and more centrally located quarters at 270 Madison Ave., suite 1201.

SIX NEW OUTLETS NAMED BY SUNROC

Six new distributors have been appointed by Sunroc Refrigeration Co. to handle its complete line of electric water coolers.

These new distributors and their territories are:

Harry Cooper Supply Co., Springfield, Mo., northern Oklahoma and southern Missouri; Salina Supply Co., Salina, Kans., northwestern Kansas; Santa Fe Builders Supply Co., Santa Fe, N. M., northern New Mexico; Wm. Bornstein & Sons, Washington, D. C., D. of C., northern Virginia, southern Maryland; Superior Distributing Co., Pittsburgh, Pa., western Pennsylvania; Southern Wholesalers, Inc., Dalton, Ga., northern Georgia.

PHILCO TRAINS ARMY MEN ON OKINAWA IN REFRIGERATION

Headquarters of the 1st Air Division at Okinawa has announced the institution of a special refrigeration mechanics training program, under the supervision of a Philco refrigeration team set up in a series of quonset huts in the air installation areas of both Kadena and Naha Air Force Bases on the island of Okinawa.

Philco technical representatives were sent directly from Philadelphia as a refrigeration team to recondition all refrigeration units on the island and serve as instructors for courses in refrigeration mechanics.

AIRTEMP NAMES 18 NEW DEALERS

Eighteen new dealers have been added to the expanding Chrysler Airtemp distributing organization. The new dealers are:

Rite Fuel Corp., Brooklyn, N. Y.; Heritage Coal & Stoker Co., Chicago; O. J. Schleis Co., Green Bay, Wis.; Lake County Sheet Metal Works, Antioch, Ill.; Seither & Cherry Co., Keokuk, Iowa; C. W. Phillips & Sons, Washington, Pa.

Home Heating Co., Hancock, Mich.; Frank Novotny & Sons, Charlevoix, Mich.; Richards Plumbing & Furnace Supply Co., Muskegon, Mich.; Gerken Heating Corp., Toledo, Ohio; Hill Plumbing Co., Inc., Waco, Tex.; Deason Equipment Co., Scott City, Kans.

Geier Electric Co., Garden City, Kans.; Jefferson Electric Co., Pine Bluff, Ark.; Butane Engineering Co., Walla Walla, Wash.; Rand Sheet Metal Works, Missoula, Mont.; Marion Air Conditioning Sales, Marion, Ohio; and Larson Furnace Co., Mason City, Iowa.

WOLVERINE CHANGES PRICING POLICY

Wolverine Tube has announced a change in pricing policy, under which all orders will be accepted on the basis that material be billed in accordance with its published prices effective on the date of shipment. The company said this change was made necessary because its own suppliers of metal have notified it that future shipments would be priced on the market in effect on the date of delivery.

OPENS NEW OFFICE

John O. Brey, consulting engineer for air conditioning, heating, and refrigeration, has announced opening of an office at 206 S. Franklin St., Tampa, Fla., and establishment of headquarters there for his Florida organization.

Brey also has offices in Miami and Jacksonville but he said the Tampa area offers greatest opportunity for expansion of any area in the state and that he will devote most of his time there.

CROSLY PROMOTES FREEZER SALES TO OHIO LOCKER MEN

More than 200 locker operators from all parts of Ohio were guests of Ohio's Crosley Frostmaster home freezer distributors at a meeting in Columbus earlier this fall. Crosley night was a part of the Ninth Annual Convention of the Frozen Foods Locker Association.

Art Wood, merchandise manager of Crosley's freezer section, in making the principal address, pointed out that a recent survey showed that 41% of the frozen food locker plants, or 4393, are today selling frozen food cabinets and that another 19% are planning to sell them. Wood especially pointed out the value of a small frozen food cabinet as an adjunct to locker operations. The value of proper display of frozen food cabinets by locker operators was also stressed.

Crosley Frostmaster distributors who were hosts at the meeting were Miami Valley Distributing Co., Dayton and Columbus; Dorraence Supply Co.; Youngstown; Modern Distributing Co., Cincinnati; Frankforts Co., Cleveland; Walding Kinnan & Marvin Co., Toledo; Pittsburgh Products, Pittsburgh, Pa.; and Huntington Wholesale Furniture Co., Huntington, W. Va.

COOLERATOR SETS TIME-PAY PLANS

Coolerator Co., Duluth, has announced the development of a nationwide credit finance plan, in cooperation with Commercial Credit Co., to cover installment sales of all its products. The plan will be available to all the company's distributors and dealers, and will be administered through Commercial Credit's offices in various principal cities.

ACME GENERAL MGR. ACRMA VICE PRES.

Kenneth A. Weatherwax, vice president and general manager of Acme Industries, Inc., Jackson, Mich., has been elected as vice president of Air Conditioning & Refrigeration Machinery Association for 1949.

COIN VENDOR SET FOR CUT FLOWERS

Production of a new refrigerated self-service flower dispenser which delivers a package of posies at the press of a button has been announced by Frosted Food O'Mat, Inc., of California, 4166 Broadway, Oakland, California.

Following years of research and development, the company reports it



plans to start production immediately on a unit boasting engineering and design features that have never before appeared in the flower dispensing field. All the shopper sees is a beautiful black cabinet with actual packaged flowers displayed under fluorescent lighting and neatly labeled with price tags. All the customer need do is drop a coin, press a button, and out drops the package selected.

The new dispenser is known as the Flower O'-Mat. The first cabinet off the production line was built for one of California's leading producers of gardenias. This company plans on installing the dispensers in airports, railroad stations, department stores, and other strategic locations.

NERA CHANGES NAME TO NARDA

The board of directors of National Electrical Retailers Association, at a meeting recently, authorized a change in the name of the organization to National Appliance and Radio Dealers Association. It was thought that the new name would be more readily understood to mean that the association represents radio and appliance dealers.

BILLINGS, MONT. WHOLESALER MOVES INTO NEW STORE

Refrigeration Supply Co., Billings, Mont., moved into its new store at 17 N. 31st St., in the heart of the Billings business district, on Dec. 1. The new building contains twice the floor space of the former location and was designed and built expressly to carry out efficiently the various functions peculiar to the refrigeration supply wholesaling business.

In addition to a sizable display floor, adequate office facilities and well placed skylights, the building is completely air conditioned for the comfort of customers and employees.

The Billings store is one of five stores operated by Frank Pond of Refrigeration & Industrial Supply Co., Inc., Minneapolis.

COAST FIRM IN EXPANSION MOVE

Neilson Equipment Co., Alhambra, Calif. manufacturer of direct draw beer dispensers, dry type beverage coolers, and reach-in and walk-in refrigerators, has announced plans to increase its present distribution in the western states. Dealers in the 11 western states interested in learning more of the company's sales plans may write direct to Lloyd Neilson, president.

WRIGHT NAMED GEORGE-ANN REP

E. S. Wright, head of Refrigeration Contractors, Inc., Youngstown, Ohio, and for the past year president of National Association of Refrigeration Contractors, has been appointed regional distributor for the George-Ann Co. line of "warm room" frozen food lockers. Headquarters of the George-Ann Co. are in Seattle, Wash. George R. Overton is president.

JORDON HAS NEW EXPORT OUTLET

Jordon Refrigerator Co., Philadelphia, has announced the appointment of Cannon & Miller, 55 W. 42nd St., New York City, as export distributor for the Jordon line of refrigeration equipment.



TURNER

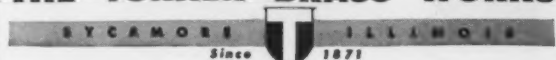
(No. 92-A)

Double Jet BLOW TORCH

Exclusive double jet burner produces a pencil-point flame—a flame within a flame, registering 2300°F. by pyrometer reading • Ideal for sweating copper fittings, brazing, or fine precision work • Idling flame keeps torch fully generated for instant use — ideal for intermittent work • Objectionable noise noticeable in single burner torches is eliminated • Seamless brass, high polished brass tank with bottom fill • Tank capacity is one quart • Fuel used — gasoline • Weighs only 4½ pounds • Identical burner, No. 95-A, has one-pint capacity.

See Your Jobber

THE TURNER BRASS WORKS



SHANK VALVES

SOLVE MAINTENANCE PROBLEMS



All-Steel GAUGE SETS

All-Steel construction. Automatic shut off of liquid in case of glass breakage. Composition packing rings give long life, no-leak seal.

Semi-Steel SHUT-OFF VALVES

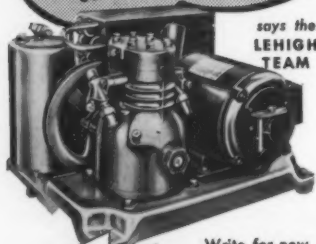
Highest grade non-porous metal — full size ports — clean cut threads. Double seated stem—Shank design base — perfect alignment. Long life packing ring.



See your jobber or write for prices.

CYRUS SHANK CO.
631 W. Jackson Blvd., Chicago 6, Ill.

"build your business on quality and the volume will take care of itself."



says the
LEHIGH TEAM

Lehigh
BLU-COLD
COMMERCIAL REFRIGERATION

Write for new
CONDENSED
CATALOG &
SERVICE PARTS LIST
¼ H.P. to 5 H.P.

- ☆ PACKAGED AIR COOLED
- ☆ STANDARD DUTY AIR COOLED
- ☆ HEAVY DUTY AIR COOLED
- ☆ WATER COOLED
- ☆ COMBINATION AIR & WATER COOLED

Lehigh Mfg. Co.
Lancaster, Pa.

ABOUT People

William T. Carmody has been appointed controller and director of



Carmody



Grote



Haynes



Krack

customer relations for Sporlan Valve Co., St. Louis, and management of sales will now be in the hands of **Charles C. Grote**, as eastern sales manager with headquarters in Mt. Vernon, N. Y., and **Merle G. Haynes**, as western sales manager with headquarters in St. Louis. Carmody, who takes over a newly created position, has been with Sporlan for 15 years; Grote has been eastern office manager for 10 years, and Haynes has been west coast field sales engineer for eight years. Taking over the west coast sales territory will be **W. H. Krack**, who will make his headquarters in Los Angeles and cover California, Oregon, Washington, Arizona, Nevada, Idaho, Utah and part of Montana. He has been in refrigeration work for more than 10 years.

Roy L. Stephens has been named sales manager of Refrigeration Supply Co., Richmond, Va., refrigeration wholesaler. He has had more than 23 years' experience in the refrigeration field.

Thomas S. Pendergast has been appointed general manager of Baker Ice Machine Co., South Windham, Me. He will make his headquarters at the general offices there, and will direct the company's over-all operations at the plants in Omaha, Neb., and South Windham.

Gordon W. Wheeler has been transferred from the Ohio territory for Henry Valve Co., Chicago, to the territory which includes northern Illinois and all of Wisconsin, Minnesota and Iowa. **Berthold Rossnagel** will take over the Ohio territory, making his headquarters at the Dayton Biltmore Hotel, Dayton.



Rossnagel

C. R. (Bob) Reed of Atlanta has been named factory representative for Federal Refrigerator Mfg. Co., Waukesha, Wis., in the states of Virginia, North Carolina, South Carolina, Georgia, Florida, Tennessee and Alabama, and **Kenneth C. Milford**

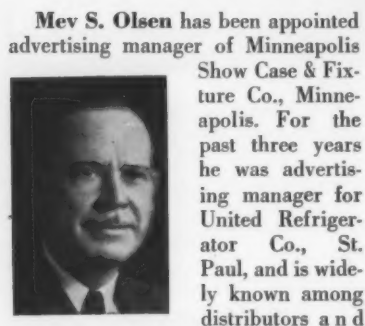


Reed

will handle the District of Columbia and the states of Maryland, Delaware, New Jersey, eastern Pennsylvania, and southern New York including New York City and Long Island, from headquarters in Baltimore.

Edward W. Rix has been named branch manager of the Sunroc Refrigeration Co. office in St. Louis. At the same time, the company an-

nounced these additional transfers of personnel: **Abner Goddard** to Glen Riddle, Pa., as assistant service manager from Atlanta, where he was branch manager, **Chester McKern**, formerly with Southern Radio Corp., has joined the Sunroc office in Atlanta as salesman.



Mev S. Olsen has been appointed advertising manager of Minneapolis Show Case & Fixture Co., Minneapolis. For the past three years he was advertising manager for United Refrigerator Co., St. Paul, and is widely known among distributors and dealers. At Minneapolis Show Case, Olsen will develop an expanded direct mail, local and national advertising campaign to back up the company's distributor-dealer efforts.

Fedders-Quigan Corp. has announced the appointment of **Ted Nemes** as regional manager for the Middle Atlantic States territory. Nemes was formerly associated with the York Corp. His territory includes eastern Pennsylvania, southern New Jersey, Maryland, Delaware, West Virginia, Virginia, and Kentucky.



William (Bill) Reed, who joined the sales department of Artkraft Mfg. Corp., Lima, Ohio, January, 1948, has been promoted to general sales manager. Reed's first advancement after joining the Artkraft organization was last July when he was named assistant sales manager. In his new capacity, Reed will be in charge of the entire sales program, including neon and store front signs as well as Bev-Line refrigeration products.

Louis H. Matthes has been appointed general sales manager of General Electric Co.'s



Matthes

air conditioning department with headquarters at Bloomfield, N. J. He will be responsible for field sales activities, commercial engineering, national user sales and activities of the customer sales divisions. Matthes has been with General Electric since 1921, and came to the air conditioning department in 1947 from the district managership of the industrial divisions in Dallas, Tex. **Charles M. Rowland** has been named sales manager of the recently established commercial refrigeration division, moving up from the sales managership of the commercial refrigeration distributing division, which he had held since 1947. **Harold B. Donley** has been named manager of marketing of the air conditioning department. He has been most recently vice president

and general manager of Hunter Fan & Ventilating Co., Memphis, Tenn., and earlier was general appliance sales manager of Westinghouse Electric Supply Co., New York City.

S. L. Nevins has been named general manager of Mathieson Chemical Corp.'s newly formed ammonia department. He will have headquarters at Mathieson's New York offices and at its Lake Charles, La., ammonia plant.

Earl G. Morgan has joined Superior Refrigeration Supply Co., Kansas City, Mo. refrigeration wholesaler, as a sales engineer.

Frank R. Kohnstamm has been appointed senior vice president of Jack & Heintz Precision Industries, Inc., Cleveland.

Continued on page 45

Always specify

STANGARD

PRIME SURFACE COLD PLATES

STANGARD

REFRIGERATION CORPORATION OF AMERICA

NEWARK 5, NEW JERSEY - A DIVISION OF NOMA ELECTRIC CORP.

PUBLIC AUCTION SALE

TUESDAY, JANUARY 18, 1949 - 11:00 A. M.

METALWORKING

WOODWORKING

MACHINERY

EQUIPMENT

The CLEVELAND REFRIGERATOR CO.

2901 EAST 65TH ST., CLEVELAND, OHIO

Everything Must Go Under the Hammer!

Cincinnati Press Brake, Series 50 x 10; Niagara Model HL10 and Model 1120 Shears; Johnson No. 4 and No. 2 O.B.I. Punch Presses; Whitney-Jensen Bender & Shear; Monarch 11" x 48" Q.C.G. Lathe; Buffalo No. 22 Shear; and other metalworking machinery.

Sheet Steel

Approximately 50-60 Ton Cold Rolled and Hot Rolled Sheets, Galvanized Sheets, Galvanealed Sheets from 18-24 Gauge in various warehouse sheet sizes. 6,200 Lbs. 24 Gauge, Stainless Steel, 2-B finish, 17½" x 66". 3,500 Lbs. 24 to 26 Gauge, Stainless Steel, 4-B finish, Regular Sheets.

American No. 444 Planer, 16" and 12" Jointers, No. 20 Sticker, Double Spindle Shaper, Tilt Table Rip and Trim Saws, 36" Band Saw and Blowers; Mattison Belt Sanders; Union Rip Saw; Beach Rip Saw; Green Cut-Off Saw; De Walt Bench Saws; Paint Spraying & Drying Equipment; Air Compressors, Welders, Electric Bench and Hand Tools, Motors, Roller Conveyor and other shop equipment.

Auto Trucks

1941 Chevrolet Stake Body 1½ Ton Truck

1947 Reo 2 Ton Stake Body Truck

\$50,000 INVENTORY REFRIGERATOR HARDWARE, PARTS & MATERIALS

A Voluntary Sale By Order of the Board of Directors!

For Illustrated Descriptive Circular Write - Wire - Phone

SAMUEL L. WINTERNTZ & CO.

FIRST NATIONAL BANK BLDG., CHICAGO 3, ILL.

DETROIT • INDIANAPOLIS

auctioneers

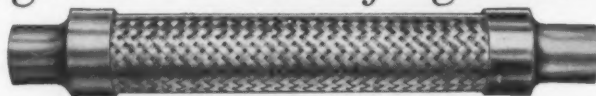
liquidators

appraisers

specially designed to eliminate

NOISE and VIBRATION

throughout ANY refrigerant system!



THE NEW PACKLESS VIBRATION ABSORBER

especially designed and manufactured for the specific needs of the air conditioning and refrigeration industries.

Noise from excess vibration, caused by pulsating gases or liquids throughout any system, is entirely eliminated by the design of the Packless Vibration Absorber. In addition, these Vibration Absorbers absorb line shock and prevent damage and resultant service interruption from broken refrigerant lines. Unconditionally guaranteed on all rated applications when properly installed.

SEND FOR NEW BULLETIN—COMPLETE DETAILS
Write for our new Bulletin VA-2 containing complete details, description, illustrated application data, operating specifications and suggested installation procedure. No obligation, of course.



PACKLESS DISTRIBUTORS ARE A DEPENDABLE SOURCE OF SUPPLY

PACKLESS

METAL PRODUCTS CORPORATION

NEW ROCHELLE, NEW YORK

ABOUT PEOPLE . . .

Continued from page 42

John H. Marling and Robert W. Carvell have been named field engi-



Carvell



Marling

neers for Alco Valve Co., St. Louis, in the general Ohio-Michigan area. Marling will cover Ohio, West Virginia and western Pennsylvania, with headquarters at 241 Castlewood Ave., Dayton. He formerly was field and application engineer for Chrysler Airtemp. Carvell will represent Alco in Michigan, northwestern Ohio, and northeastern Indiana. He is a "graduate" of Alco's own engineering department.

M. E. (Joe) Corbin has been named direct factory representative of Kramer Trenton Co., Trenton, N.J., in the territory covering Ohio, western Pennsylvania, West Virginia, and western Michigan. He will handle the Kramer line exclusively. Corbin has previously been with Carrier and General Electric.

Dewey Rhinehart has been appointed general service manager of



Tyler Fixture Corp., Niles, Mich. He has been in the refrigeration business since 1925, starting with the Delco Light Co., and moving on to the service technical division of Frigidaire when that company began manufacturing equipment.

DOWN THE HATCH! . . .

Continued from page 27

its horseshoe awash, yet safely maintaining its overall stability even when carrying a full cargo.

In the case of a big clipper like the *Scarlet Queen*, this called for the most meticulous planning in properly positioning the huge mass of machinery thruout the hull. For instance, there are some 50 motor driven pumps which had to be strung along the shaft

alley for even distribution of weight.

Eight of the vessel's cargo wells are equipped for carrying live bait besides numerous other bait tanks, all of which are equipped for circulating salt water thru all the tanks by means of the many pumps.

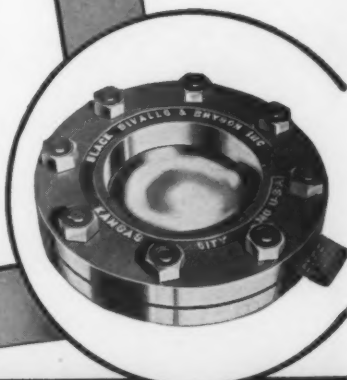
The complete pumping system comprises brine for the refrigeration systems, bait, fuel, lube, bilge, fire and transfer pumps. Eighteen Jacuzzi brine circulating pumps are employed in the brine system, with Fairbanks-Morse pumps making up most of the remaining units.

**PREVENT
OVER-PRESSURE
TROUBLE**

*in your
refrigeration
units*

with

BS&B SAFETY HEADS



Protect receivers and copper tubing from rupture. Save compressors from destructive over-pressure. SAFETY HEADS offer that positive margin of safety that prevents such accidents. Eliminate costly equipment losses . . . save on costly shut-downs. The simple rupture disc of the SAFETY HEAD absorbs the shock of over-pressure . . . bursts in tension at pre-set pressure.

SAFETY HEADS provide a full-throated, pipe-sized escape point. Fractured discs are easily, quickly replaced. Tamper-proof, fool proof SAFETY HEADS offer you guaranteed performance. A wide selection of types assures you of tailor-made protection. Write today for complete details. Address Special Products Division, Black, Sivalls & Bryson, Inc., Power and Light Building, Kansas City 6, Mo.



FOREIGN INQUIRIES INVITED

Cable Address: BLACK, KANSAS CITY, U.S.A.

BLACK, SIVALLS & BRYSON, INC.

KANSAS CITY, MO.

OKLAHOMA CITY, OKLA.

3 REASONS WHY

Eston
REFRIGERANTS
ARE BETTER!



Years of use in all types of refrigeration equipment have established Eston refrigerants as the favorite of servicemen. Eston wholesalers are conveniently located. Write for information today.

Distributors of

FREON 11-12-22-113-114

Eston
CHEMICALS, INC.

3100 East 26th Street
Los Angeles 23, California

Useful LITERATURE

The publications listed below are available to readers without charge. Simply list on the postcard provided in this issue the key numbers of the items you wish to receive. Your requests will be forwarded directly to the companies concerned.

353—Vibration Control . . . An isolation selector chart tabulating more than 50 typical machine and equipment applications and giving recommendations for the proper types of vibro isolators for highest efficiency is a feature of this new bulletin (G-101) on the advantages and limitations of spring mountings, rubber mountings, and cork materials in the control of vibration. Available from Korfund Co., Inc.

354—Heat Load Tables . . . A condensed engineering data book to aid both salesmen and service contractors in figuring heat loads and determining proper applications of forced convection units. Typical examples of heat load calculations are included. Available from Betz Corp.

355—Locker Plant Thermometers . . . A bulletin (T839) outlining the new Bristol "Series 500" recording thermometers for frozen food locker plants and describing their application to locker rooms, chill rooms, and quick freeze rooms. Available from Bristol Co.

356—Oil Separators . . . Bulletin No. 15-A describing, illustrating, and listing specifications of a line of oil separators for Freon and ammonia refrigerants. A dimensional diagram is included. Available from Acme Industries, Inc.

357—Cooling Towers . . . Five loose leaf catalog sections covering the following standard types of Binks cooling towers: large capacity spray towers, single and twin fan horizontal induced draft towers, heavy duty induced draft towers, and small redwood spray towers. Available from Binks Mfg. Co.

358—Beverage Dispenser . . . A 3-color brochure (203-4) introducing the new Mills "65" coin operated bottled beverage cooler. Features are illustrated and described and a complete listing of mechanical and construction details is included. Available from Mills Industries, Inc.

359—Commercial Cases . . . A colorful folder illustrating and describing 14 different items of commercial refrigeration equipment produced by Fogel Refrigerator Co., ranging all the way from 20-cu. ft. reach-ins to large sectional walk-in coolers.

360—Hand Truck . . . An illustrated promotional sheet on two types of appliance handlers for aiding in the moving of all

types of packaged equipment. Prices are quoted. Available from Barnes & Smith Corp.

361—Miniature Motors . . . Revised catalog covering the entire range of fractional horsepower "Micromotors" from 1/500-hp to 1/15-hp. Performance tables and dimensional diagrams are shown for each type and size. Available from Redmond Co., Inc.

362—Gauges . . . A 32-page catalog (No. 7000) containing photographs and complete descriptions of a complete line of pressure and vacuum gauges. Pressure range charts and eccentric indicating scales are included. Available from Brown Instrument Co.

363—Lathes . . . Catalog No. 73 describing 13 and 1½-inch swing precision lathes featuring a new headstock spindle with larger bore to take collets up to 1-inch maximum capacity. Also listed are chucks, collets, and other accessories for use with these larger spindles. Available from South Bend Lathe Works.

364—Cooling Equipment . . . A series of catalog sheets illustrating, describing, and listing specifications of a line of cooling towers, product coolers, and air conditioning units for commercial and industrial applications. Available from Worthington Pump & Machinery Corp.

365—Metal Treating . . . A set of seven new folders on metal preservation and paint durability on metal. Each folder describes a specific metal-treating chemical. Illustrations depict various phases of the product and process involved. Available from American Chemical Paint Co.

ECONOMY PUMPS APPOINTS MINNEAPOLIS OUTLET

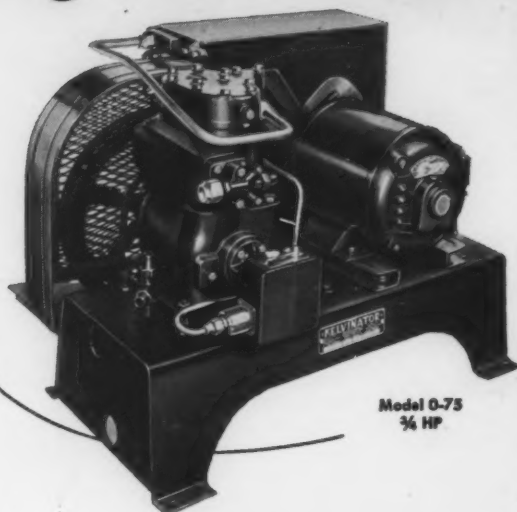
Appointment of R. G. Dinham Co. of Minneapolis, Minn. as a distributor has been announced by Economy Pumps, Inc., Hamilton, Ohio.

The Dinham firm, owned and operated by R. G. Dinham, will handle the full Economy line of centrifugal, axial flow, and mixed flow pumps. Two graduate engineers, Lynn E. Thomas and R. E. Dinham, are employed by the company.

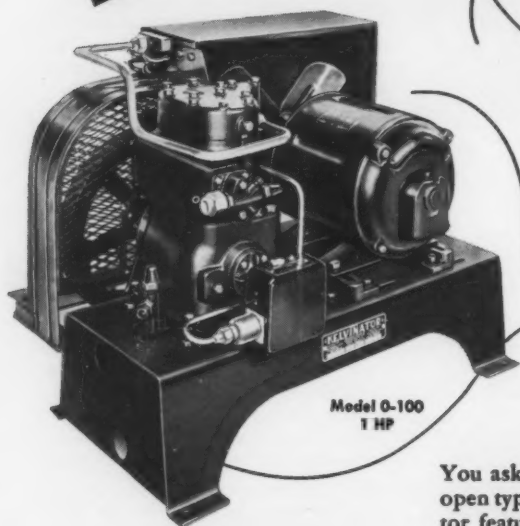
They're here—They're Kelvinator!

2 New Condensing Unit Models

3/4 HORSEPOWER
A NEW HIGH CAPACITY
UNIT



Model O-75
3/4 HP



Model O-100
1 HP

1 HORSEPOWER
A NEW
HEAVY DUTY UNIT

FOR
TROUBLE-FREE
PERFORMANCE,
USER ACCEPTANCE
AND
COMPETITIVE PRICE
GET

You asked for them and here they are. Two big, new, open type condensing units with all the famous Kelvinator features which assure *superior performance* and *low cost operation*.

With these two new units, you can now choose from a range of five Kelvinator open type models . . . from 1/4 to 1 horsepower.

For your next new or replacement installation, choose Kelvinator—and you can be sure you've selected the *right* condensing unit for the job. All models are available for immediate shipment. Just call your nearest Kelvinator Distributor or Zone Office. Kelvinator, Division of Nash-Kelvinator Corporation, Detroit, Mich.

Kelvinator—of Course!

DEPEND ON KELVINATOR FOR ALL YOUR REFRIGERATION NEEDS

**Facts about
J-M Insulations
Subject: ENGINEERING
and APPLICATION**



Efficient insulation must be engineered to the job

Any insulation will save some money. But only the right insulation, specifically engineered for a specific job, will save the most money for the longest time.

For this reason, refrigerating engineers have long recommended Johns-Manville Rock Cork as one of the most reliable, efficient, and permanent refrigerating insulations obtainable.

In cold room service, Johns-Manville Rock Cork is ideal because it is basically

mineral in composition, and because it maintains its original low conductivity. It is moisture resistant and has numerous further advantages in that it will not absorb odors, cannot rot, and is resistant to termites and vermin.

When you specify Johns-Manville Rock Cork for refrigeration service, you are sure of getting the insulating material that's engineered for the temperature and service conditions of your job.

Efficient insulation must be skillfully applied

Rock Cork must be skillfully applied throughout the entire system for maximum

efficiency. Across the nation there is a network of contracting firms specializing in the correct application of J-M insulations. These contractors employ skilled mechanics who are experienced in the proper application of J-M insulations in all types of service.

For more information on how this J-M insulation service can be of help to you in connection with your insulating problems, write to Johns-Manville, Box 290, New York 16, New York.



Johns-Manville

ROCK CORK
INSULATION

NEW Products

For further information on any of these products, simply list on the postcard provided in this issue the key numbers of the items in which you are interested. Your requests will be forwarded directly to the companies concerned.

Beverage Cooler • • • P-337

Product: "Champion" dry beverage cooler with black morocco body.



Manufacturer: National Cooler Corp., Cleveland, Ohio.

Features: Previously available in

all stainless steel finish only, this dry beverage cooler now is being offered in a model with black morocco body to meet the low price demand in the four popular sizes. Entire slant top and slide-up doors are of stainless steel. Automatic interior lighting. Removable partitions. Reinforced structure. Completely self-contained.

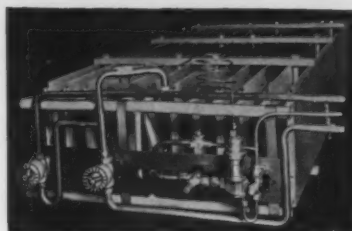
Plate Defrost Unit • • • P-338

Product: Model LHG-72 complete hot gas defrost bank assembly.

Manufacturer: Dole Refrigerating Co., Chicago, Ill.

Features: Twelve 12 x 72-inch

cold plates combined into a single assembly (no expansion valve), with plates located on 2 $\frac{3}{8}$ -inch centers



with 1 $\frac{5}{8}$ inches clear. This assembly, which has a shipping weight of 540 pounds, measures 77 inches in length, 27 $\frac{1}{2}$ inches in width, and 13 $\frac{3}{4}$ inches high overall, including the defrosting assembly mounted on the end.

Pipe Cement • • • • P-339

Product: "Plumber Krak-Stik", a pipe mending cement in stick form.

Manufacturer: Lake Chemical Co., Chicago, Ill.

Features: Provides positive seal for cracks or pinholes in liquid lines. Stops leak instantly while liquid runs

You pay no premium in price for the premium performance and exclusive patented features in Henry Products.

STRAINERS

● Newly designed "Y" strainer has forged brass end caps and brass plated steel shell. Removable screen cartridge positively located by means of spring tension. Connections: $\frac{3}{4}$ " to 4 $\frac{1}{4}$ " O. D. S. and 1" to 3" F. P. T. Screen capacity: 23 to 175 sq. in. 8-bolt distortion-proof flange insures tight sealing.



Sold by leading wholesalers

HENRY VALVE COMPANY

Control Devices, Valves, Driers, Strainers and Accessories for Refrigeration and Air Conditioning and Industrial Applications.

Chicago, Illinois • Cable: HEVALCO Chicago, Illinois



through pipes under pressure or remains in container. Assures positive seal for water, gas, acids, brine, etc. All that is required is to rub the stick heavily over any crack or leak.

Evaporative Condensers • P-340

Product: A line of eight new evaporative condensers which use both air and a water spray to cool hot refrigerant vapor and change it into a liquid during the normal course of a cooling cycle.

Manufacturer: Frigidaire Div., General Motors Corp., Dayton, Ohio.

Features: Operate as separate, remotely installed units, and are used with matched evaporative-type compressors which are built without condensers. By employing forced air and a pressurized water spray, instead of the ordinary circulating water system, they reduce water consumption as much as 90% on large air conditioning and refrigeration installations. Models range in capacity from 2 to 50 tons. They cut operating expense and



improve compressor efficiency. Comprised of three sections, fan, coil, and base. In operation, fans draw air into unit through intake grille. At the same time, water is sprayed into air stream, wetting the surface of the condensing coil, which contains hot refrigerant vapor from the compressor. The vapor is cooled by the joint action of the air, and the water is restored to its liquid state, moving on to the cooling unit.

Pipe Hanging Tool • • • P-341

Product: Portable hand tool for imbedding studs in steel or masonry.

Manufacturer: Mine Safety Appliances Co., Pittsburgh, Pa.



Features: Powder-actuated driver will pin pipe hanger to concrete ceiling or wall or to steel I-beams or columns in a few seconds. Also fastens wood to concrete or steel. Imbeds studs in steel or masonry by discharge of a blank cartridge. Once imbedded, studs have holding power up to several thousands of pounds. Studs are available in two diameters and many types. Operation of the 5-pound tool is simple. The stud, with cartridge attached, is inserted in the barrel. The operator then actuates a spring-loaded safety arm to move firing pin

PA 100

FOR SAFETY BELOW
"FREEZE-UP" LEVEL



Ask your jobber for dehydrators charged with PA 100, Davison Refrigeration Grade Silica Gel . . . he also stocks it in the can with the blue label.

DAVISON Refrigeration Grade SILICA GEL

. . . gives instant refrigerant drying and maximum moisture capacity to prevent expansion valve icing. Moreover, PA 100 gives you the bonus advantages of dust-free drying, freedom from caking and channeling, removing acids and corrosive compounds. No wonder PA 100 is the favorite of refrigeration service engineers, it is . . .

**PROCESSED ESPECIALLY FOR THE
DEHYDRATION OF REFRIGERANTS**

U.S. PAT. REG. APP. FOR

THE DAVISON CHEMICAL CORPORATION
Progress through Chemistry **D** BALTIMORE-3, MD.

PIONEERS AND DEVELOPERS OF SILICA GEL

Canadian exclusive agents for DAVISON SILICA GEL:

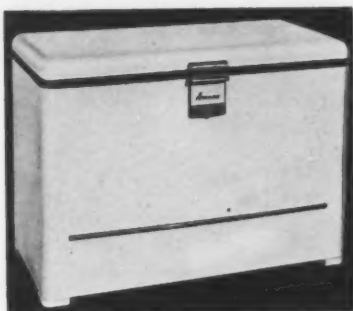
CANADIAN INDUSTRIES LIMITED, Sales Division, Chemical Group

into position. Holding barrel against material to be penetrated, the tool is pushed forward sharply to discharge the stud. Safety features minimize accidental firing.

Home Freezer • • • P-342

Product: Model 110 Amana home freezer.

Manufacturer: Amana Society, Refrigeration Division, Amana, Iowa.



Features: 10-cu. ft. capacity. Easy to reach "hideaway" temperature control. Built-in cylinder type lock on latch. New escutcheon design with built-in temperature indicator. Leveling gliders on all four corners of cabinet. Convenient 39-inch height. Full opening lid for ready accessibility. Chrome hardware over-all. All steel, electrically welded cabinet finished in Dulux enamel. "Zero Wall" construction maintains uniform temperature in entire food storage cabinet.

Defrosting Control • • • P-343

Product: "De-Frost-It" household refrigerator defrosting control.

Manufacturer: Paragon Electric Co., Two Rivers, Wis.

Features: Converts any home refrigerator into fully automatic night defrosting in less than a minute. Refrigerator cord plugs into control and control cord plugs into electrical outlet. Exclusive adjustment makes it possible to set the right defrosting cycle for any refrigerator, regardless of age, climate, or humidity. "Skip-Defrost" arrangement interrupts defrosting cycle if desired to store ice cream or frozen desert overnight. Circuit to refrigerator interrupted just long enough to permit defrosting, so temperature rise generally does not exceed differential setting of thermostat.

Alarm Thermometer • • P-344

Product: Contact-making thermometer, combining the features of an indicating thermometer and an alarm or control device.

Manufacturer: Weston Electrical Instrument Corp., Newark, N. J.

Features: Consists of Weston all metal thermometer with an adjustable contact arm mounted in the glass and bezel. A screw-type terminal block mounted on the periphery of the case front provides for easy electrical connection. Contacts are of the magnetic type, assuring positive action during making and breaking of contacts. Contact arm is easily set to make contact at any temperature over the entire scale. While contact can be broken manually after alarm has been sounded, contacts break automatically on a temperature change of about 5%. Can be supplied to make contact on either increasing or decreasing temperature. Accuracy as thermometer is plus or minus 1%; as control is plus or minus 1½%. Stem lengths from 2½ to 24 inches.

CARRIER SYSTEM DRIES COMPRESSED AIR

A Carrier air conditioning system, designed to remove moisture from compressed air, was recently completed for the Northern Electric Co., telephone manufacturers in Montreal, Canada.

Compressed air is used to drive small air motors and for blowing dust from radio and telephone assemblies. The moisture must be removed to keep the delicate electrical parts from rusting.

The humid compressed air at 90°F and 90 pounds pressure is passed through a shell and tube cooler operated in conjunction with a Carrier compressor. The air is cooled to 45°F and is then reheated with hot gas through a shell and tube exchanger to 70°F.

DEEFPREEZE NAMES GROSS

Appointment of Gross Distributors Inc., as distributor for Deepfreeze home freezers in the New York metropolitan area has been announced by Deepfreeze Div., Motor Products Corp.

FOR RUGGED ENDURANCE



on your next job choose a

MILLS

a condensing unit for
every installation

Mills Industries, Incorporated • 4100 Fullerton Avenue • Chicago 39, Illinois

MAN OF THE MONTH . . .

Continued from page 38

The corporate structure of the North Town firm was the same as that of Refrigeration Maintenance Corp., except that this time it was Tom's turn to be president.

By September, 1938, Refrigeration Maintenance Corp. had grown to such a size that it was again forced to seek larger quarters. This time, leaving the sheltering wing of patron Schwab, Al and Tom finally settled in their

present quarters, a two-story-and-basement building situated at 321 East Grand Ave. on a plot of land originally purchased from the Indians by the first mayor of Chicago.

This building provided them with more than 16,000 sq. ft. of floor space. When they first moved into it they almost literally "rattled around," Al recalls, but since then the organization has expanded so greatly that the building is now nearly bursting at the seams.

The central location of the company's headquarters has proven in-

valuable in the conduct of its service business. Although only a couple of blocks from the loop, the property provides adequate parking space and ready accessibility to principal arteries leading to all parts of the sprawling metropolitan area.

Once comfortably settled in their new quarters, the partners felt that they were then in a position to move still further afield in their continuing program of expansion.

Sometime previously, Universal Cooler had tried to talk Al and Tom into taking over its authorized service operations in the Detroit area, just as they already held the franchise in Chicago. Now the boys felt they were ready, so in January, 1940, they formed Refrigeration Maintenance Corp. of Michigan and established it in a location on Detroit's Cass Ave. To manage this new operation they selected F. J. Allen, previously a member of the North Town organization, and George C. Murphree, formerly with Universal Cooler.

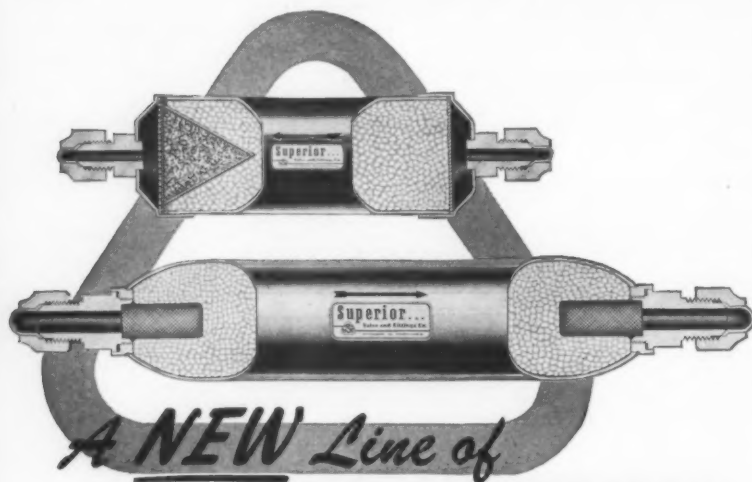
All this time Al was devoting the major portion of his effort to the development of Refrigeration Maintenance Corp., while Tom concerned himself chiefly with the North Town operation. The two partners conferred closely and frequently, however, on all matters of overall policy.

North Town Expands

With the North Town organization Tom did such an outstanding job for Frigidaire that this company offered him the franchise for the South Side as well. Accordingly, South Town Refrigeration Corp. was formed by the two partners, under Reedy's direction, in 1942.

During the war, when all the emphasis necessarily was on service rather than on sales, Al and Tom fell to thinking about the merchandising end of the commercial refrigeration and air conditioning business, and the tremendous possibilities which this phase of the industry would offer when new equipment once again became generally available. As a result of these deliberations they became firmly convinced that the best way to handle such an operation would be through an entirely separate organization.

Both men felt that the complete separation of sales and service operations was extremely important, as such a separation would allow each branch of the business to function en-



A NEW Line of SUPERIOR DRIERS

The DRIERS with the *Plus Features*

- ★ MODERN DESIGN
- ★ EFFICIENT OPERATION
- ★ REFILLABLE AND NON-REFILLABLE TYPES
- ★ ALL BRASS CONSTRUCTION



For complete details and specifications on the New Driers and other Superior products, ask your Wholesaler for a copy of our NEW Catalog R3.

(or a copy may be obtained by writing to us)



tirely independently and with maximum effectiveness. They were convinced that in a combined sales and service organization the sales department would sooner or later start dictating matters of policy to the service department, and from their own years of experience in the maintenance field they felt that this was not a healthy situation.

In the fall of 1945, shortly after the war's end, the two partners decided to put their merchandising theories into actual operating practice by setting up a separate and distinct organization to engage in the sale of commercial refrigeration and air conditioning equipment.

Casting about for a name for this new organization which would defi-

are strictly merchandising and engineering operations, which subcontract all of their installation and service work to their respective Refrigeration Maintenance organizations.

The Detroit version of Talbert-Thomas has been located right next door to Refrigeration Maintenance Corp. of Michigan ever since its inception, and like the latter organization is under the active supervision of Fran Allen, who serves as secretary of both of the Michigan organizations.

In Chicago, the Talbert-Thomas operation was first located in a former automobile showroom on Michigan Boulevard, but only a couple of months ago was moved to 160 East Grand Ave., just a block or so from Refrigeration Maintenance Corp. This move has resulted in much closer coordination between the two firms and their present proximity enables Al to direct the operations of both concerns from a single office.

Although North Town and South Town were primarily under Tom's management, and Refrigeration Main-

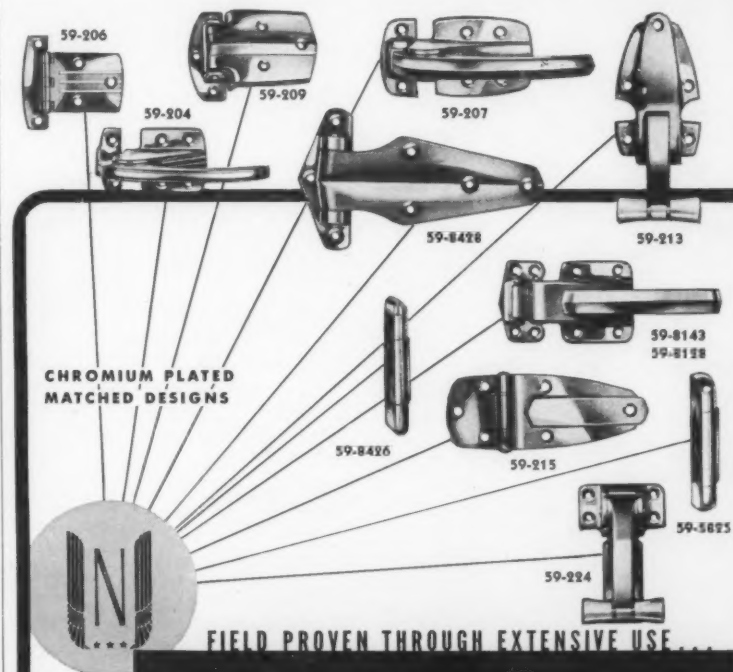


Under his father's guidance, Howard Weil works at the bench which Al built for him.

nately identify it with themselves, yet still be euphonious and easy to remember, the partners hit upon the happy idea of combining their two first names, Albert and Thomas. To keep these from sounding like first names, however, Al compromised by prefixing a letter to his name, and thus Talbert-Thomas Co. was born. Following the pattern already established with Refrigeration Maintenance Corp., Talbert-Thomas Co. of Michigan was organized at the same time.

In Chicago, Talbert-Thomas Co. serves as distributor of General Electric commercial refrigeration and air conditioning, Bastian-Blessing soda fountains, Anheuser-Busch ice cream cabinets, Sherer-Gillett store fixtures, and Iceberg locker systems. Its Detroit counterpart serves as distributor for the York line of products.

Both of these Talbert-Thomas firms



NATIONAL LOCK REFRIGERATOR HARDWARE

PREFERRED BY MANY FOR A WIDE RANGE OF JOBS

- REACH-IN CABINETS
- BACK BARS
- BOTTLED BEVERAGE COOLERS
- MILK COOLERS
- COIN-OPERATED REFRIGERATED DISPENSING MACHINES
- LOW TEMPERATURE HORIZONTAL OR VERTICAL CABINETS
- MANY OTHER TYPES OF REFRIGERATING EQUIPMENT
- DISPLAY CASES
- FLORISTS BOXES
- DRAFT BEER EQUIPMENT
- STOKERS

Ask your jobber for detailed information, including prices, of this attractive, durable refrigerator hardware for commercial and domestic applications. Prompt delivery can be assured on your orders.

NATIONAL LOCK COMPANY • ROCKFORD, ILLINOIS
REFRIGERATOR HARDWARE DIVISION

tenance and Talbert-Thomas under the management of AI—particularly in recent years—each partner found time to assist the other in all four businesses. With the end of the war, however, and the tremendous increase in civilian consumer demand, Tom found North Town and South Town a full time job, as did AI at Refrigeration Maintenance and Talbert-Thomas. And so, in 1946, AI withdrew from North Town and South Town and Tom withdrew from the Chicago operations of Refrigeration Maintenance and Talbert-Thomas. The two

are closely allied in conducting their Detroit operations, where they are still partners.

Refrigeration Maintenance Corp., as it is now constituted, is indisputably one of the largest exclusive refrigeration and air conditioning installation and service firms in the country, with this organization alone having about 120 employees. In planning its progress AI has consistently endeavored to diversify the company's business sufficiently so that if one phase of its activities should slump the others would take up the slack.

To do this, without spreading the organization's efforts too thinly, has been a continual administrative problem which AI seemingly has met successfully.

One of his answers to this problem of diversification has been the development of certain refrigeration specialties which the company now manufactures on a limited contract basis for various independent specialty sales organizations. One of these items is a specially designed water cooler for use on railroad trains, both in coaches and in engine cabs. Another is a constant temperature solution setup for commercial photographic processing.

Still another offshoot of the company's maintenance operations is a complete and standardized parts rebuilding service for refrigeration firms from coast to coast. This service was inaugurated in 1945 after Wally Zeuschner, the company's shop superintendent, had returned from a fishing trip to Wisconsin with some cronies of his who were in the refrigeration business but who had no facilities for complete reoperation and repair of equipment and parts.

Rebuilding Service Set

At Zeuschner's suggestion, AI set up such a service, under the trade name of "Remcor," complete with 16-page catalog and price list covering a wide range of standard equipment such as water valves, float valves, pressure controls, compressor bodies, condensers, and evaporators. Through this medium the customer can learn in advance just how much any of these standard operations will cost him. All equipment rebuilt or exchanged is guaranteed for 90 days.

Refrigeration Maintenance Corp.'s service shop is set up to completely recondition and reoperate any type of refrigeration or air conditioning equipment, from the smallest household unit to the largest commercial or industrial system. Many special pieces of machinery, not usually found in a service shop, have been installed to enable the company to do the best possible job on this type of work. For instance, there is a sand blasting unit for cleaning and renewing all non-polished metal surfaces of such pieces as crankcases, connecting rods, and eccentrics. There is also an automatic precision surface grinder for renewing the surfaces of valve plates and other parts.



Month in and month out — year after year — "Recold" Water Defrost Coils Provide Positive Low Temperature Protection in all kinds of applications. For ice cream hardening rooms, frozen food freezing and storage and other installations where temperatures below 34° are essential. "Recold" Water Defrost Coils meet every requirement. Write us today for the name of your nearest "Recold" distributor.



**REFRIGERATION
ENGINEERING, INC.**

7250 East Slauson Ave. • Los Angeles 22, Calif.

The company handles a large amount of work under maintenance contracts, on equipment both in warranty and out, for manufacturers, distributors, sales agents, and direct customers. This is all handled by a separate department, and a specially developed type of record system is employed to keep track of these transactions. This record system provides for detailed reports to manufacturers on recurring flaws or defects found in their equipment, together with recommendations for the correction of these problems.

Record keeping has become almost a phobia with Al, who firmly believes that it is just as important to know where you have been as where you are going. As a result of this



Al's wife, Dorothy, stands by to make sure that daughter Laura keeps at her practicing.

conviction, Refrigeration Maintenance Corp. now boasts as comprehensive a record department as you could imagine. With no previous experience to go on, many of the special forms which the company now uses have been developed through the trial and error method, and new ones are continually being added whenever a need for them becomes apparent.

All these things are further evidence of the intense degree of organization which Al Weil has brought to the concern whose destiny he so zealously guides, and through this organization Al now has the firm running on a basis which relieves him of virtually all of the detail work and leaves him free to formulate matters of basic policy.

Part and parcel of this policy is the training of personnel for advance-

ment within the organization. For eight months out of the year, both beginner and advanced service classes are conducted by the company. Al believes in making plenty of room in the corporation for those employees who have the initiative and ability to forge ahead, and he is constantly on the lookout for this type of individual.

Eloquent testimony to this fact is the stable employment record among key personnel in the organization. Prack, the vice president of Refrigeration Maintenance Corp., as previously mentioned, has been with the firm

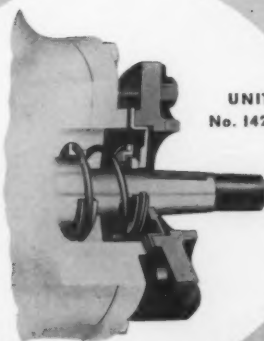
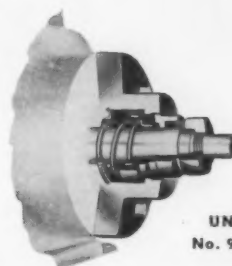
almost since its inception, as has its installation supervisor, Edward Fitzgerald. I. J. Kristufek, vice president of Talbert-Thomas Co., has been associated with Al for some 10 years. Zeuschner, the shop superintendent, has been with the firm for 14 years, while the company's comptroller, Harry A. Klotz, is a 13-year man.

Refrigeration Maintenance Corp. has done more for Al Weil than provide him with an amply comfortable living and a widespread reputation as a sound and progressive businessman. It also has given him a wife.

ROTARY SEAL

"THE ORIGINAL
TIME TESTED,
PRECISION BUILT
REPLACEMENT
UNITS"

Tested by time and proved by performance, ROTARY SEALS have won world wide recognition for their precision construction and uniform dependability. Our stock sheet lists more than 848 models available at leading jobbers. When you insist on ROTARY SEALS you insist on quality at its best.



See your jobber



2020 NORTH LARRABEE ST. • CHICAGO, 14, ILLINOIS, U.S.A.
CANADIAN AGENT: 2025 ADDINGTON AVENUE • MONTREAL, 28, QUEBEC, CANADA

For when Dorothy Schneider first walked into Al's office to apply for a job back in April of 1937, Al knew at once that there was the kind of a girl he would like to marry. And, being an exceedingly purposeful young man, he did!

Al was so impressed with Dorothy at first sight that he promptly offered her more money than he had originally intended to pay. And he maintains to this day that it was the smartest business investment he ever made!

Al courted Dorothy for more than a year before the couple announced

their engagement in June, 1938, but so discreetly was this office romance conducted that the engagement came as a complete surprise to the entire staff. Al married Dorothy in October of that same year, thereby automatically losing one of the most efficient employees he'd ever had.

The family now has two children, Laura Susan, 8½ years old, and Howard, 6½. Laura at the moment looks like the student in the family, and takes considerable pride in the "all-E" report cards which she brings home from the third grade. She is

cultivating her artistic sense, too, through the medium of piano lessons, but like most little girls her age she'd like to figure out a way of learning to play without practicing.

Son Likes to "Make Things"

Howard seems to lean more to the practical side, and is beginning to exhibit some of his father's natural mechanical interests. He gets a big kick out of making things with his hands, and spends a lot of his spare time toying around at the workbench which Al recently built for him.

For all but about three years of their married life the Weils have been apartment dwellers, not so much due to inclination as to convenience. The one break in this pattern involved the purchase of a home in suburban Highland Park, well out on the North Side. But in this location it took Al a full hour to drive to work in the morning, and another hour to drive home at night.

Under the pressure of wartime work the strain of this commuter's life became too much for Al, and so the family sold their home and moved back to a 7-room, 12th floor South Side apartment which sports a beautiful view of Lake Michigan. What's more important, Al now can get to and from the office in 15 or 20 minutes.

Al has had a number of hobbies in his lifetime, but none of them seem to have stuck by him very long. His volatile, perfectionist nature seems to make him dissatisfied with even his best efforts in any particular field, and his interest then shifts to other channels.

A "Flyer" at Flying

A one time "shutter bug," he equipped himself with a Contax camera as well as movie equipment, but now he frankly admits that he hasn't taken as much as a snapshot in years. He took flying lessons for a while, primarily, he admits, "for lack of anything better to do." He even managed to pile up 23 hours of solo time. But the fact that his family was unable to participate in this diversion, except to sit at the airport and wait for him to land, soon took the edge off of this hobby.

His principal pastime at present is

HEAT-X CAST ALUMINUM HEAT EXCHANGERS



If your heat exchangers bear the name of HEAT-X you have
(1) Minimum pressure drop. (2) No internal joints . . . no by-pass.
(3) No oil trapping. (4) Compactness. (5) Efficiency. (6) Sizes to match your condensing units. (7) Simple selection data and ratings.
(8) Straight through suction connection. (9) Minimum liquid charge.
(10) Full range of capacities.

"A Heat Exchanger is Only as Good as its Freedom From Pressure Drop."

THE HEAT-X-CHANGER CO., INC.
415 Lexington Avenue, New York 17, N.Y. Brewster, N.Y.

**BUY FROM YOUR
REFRIGERATION WHOLESALER**

THE REFRIGERATION INDUSTRY



SHAPES UNLIMITED

Typical aluminum and brass extrusions illustrated represent only a few of the thousands that are produced for all industry in our extrusion plants. Send us your sample or blue print for quotation.

EXTRUDED METALS DIVISION
DETROIT GASKET & MANUFACTURING COMPANY
 DETROIT 23, MICHIGAN

KEROTEST*presents***"SHORTY"****INLINE**

The Mighty Mite of
all refrigerant valves!

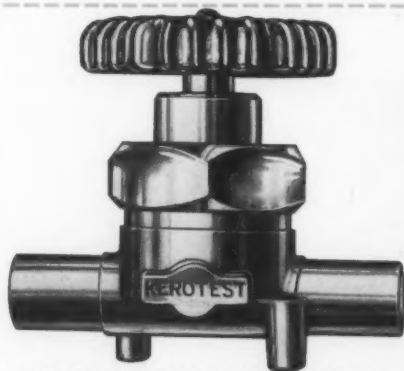


KEROTEST leads in design!

Always first with the valve designs that solve your problems, KEROTEST leads again with "Shorty" the new refrigerant valve that installs in even the most cramped places.

Streamlined, with ports in line and mounting feet made integral with the valve body, the new Kerotest R24 requires only $3\frac{1}{8}$ " of height when full open . . . the "Mighty Mite" refrigerant valve of the industry!

KEROTEST's famous diaphragm packless construction is combined with high efficiency flow characteristics and rugged construction that assures you of top operating performance and life-long dependability.



$3\frac{1}{8}$ " High When Fully Open

From mounting board to maximum stem extension only $3\frac{1}{8}$ " of height is required . . . the shortest diaphragm packless line valve on the market. It's a knockout in your clinches with tight places and a top performer for use in all your installations.

*See your***KEROTEST***Wholesaler*

KEROTEST MANUFACTURING CO.
PITTSBURGH 22, PA.

AMERICA'S FIRST NAME IN QUALITY VALVES

golf, and in order to take full advantage of it he joined the Ravisloe country club at Homewood, Ill. He's reasonably happy with this arrangement, for the kids can swim or play around while he and Dorothy are touring the links. Apparently, however, he's not satisfied with his efforts on the course, as yet, for he's mighty reticent about publishing his average score.

The yen for travel which both Al and Dorothy share stems perhaps from their honeymoon cruise to the British West Indies and South America. But in any event they have heightened it in recent years with such junkets as an airplane trip to

and Air Conditioning Contractors, as well as other local refrigeration groups.

Quite naturally, however, his greatest organizational interest has centered around the Refrigeration Contractors Association of Chicago, of which he is a charter member, and the National Association of Refrigeration Contractors.

He has long served as a member of the board of directors of the local contractor group and only last fall performed an outstanding job in preparing and presenting the program

for NARC's third annual convention which was held in Chicago last November.

Yes, Al Weil is an organizer from the word "go." And once he sets himself a goal to achieve, it wouldn't be wise to bet against his chances of making the grade. On the basis of past performances the odds are plenty-to-one that you'd be backing a losing proposition.

**BUY FROM YOUR
REFRIGERATION WHOLESALER**

*Men like you wrote
this advertisement*



**"USING
NOTHING BUT
THAWZONE"**

"We learned that quite a number of our dealers were using Thawzone and eliminating expansion valve freeze-ups. I am now with a company doing a large volume of commercial refrigeration business, probably 75 per cent of which is low temperature installations. We are using nothing but Thawzone in all our applications . . . Richard Markley, Jr., Hodge's, Liberty, N. Y."

**"USED FOR
THE PAST
EIGHT YEARS"**

"We have been using Thawzone for the past eight years in almost all of our low temperature systems and many of our medium temperature jobs. We have always found it to eliminate all moisture troubles on the first application. We have never found any deteriorating effect from the use of Thawzone . . . John H. Mayer, Mayer Refrigerating Engineers, Rutherford, N. J."

**"USES
THAWZONE ON
ALL NEW JOBS"**

"Every new job has Thawzone directly applied into the receiver and strainer, as I have yet to see any such equipment in which every piece is absolutely dry. On service jobs we inject Thawzone into both the strainer and crankcase. I have never had any adverse conditions arise in any system from the use of Thawzone . . . Harry H. Spear, Refrigeration Service Engineer, Danville, Ill."

Your refrigeration wholesaler has it

THAWZONE
PATENTED
The PIONEER FLUID DEHYDRANT

HIGHSIDE CHEMICALS CO.
195 VERONA AVE., NEWARK 4, N. J.



*TRADE MARK REG. U. S. PAT. OFF.

As program director, Al was a guiding light of the third annual convention of the National Association of Refrigeration Contractors. Here he stands at the rostrum while addressing one of the sessions.

Mexico and last year's sojourn at an Arizona dude ranch.

Both Al and Dorothy are extremely active in their own religious circle. Al is a vice president of Beth Am (which in English means "The People's Synagogue"). A relatively new congregation, Beth Am is the 15th reform synagogue in the city of Chicago.

Fortunately for the industry as a whole, Al's organizational talents have not been expended solely in behalf of his own interests, for he has given freely of his time and his efforts to a variety of refrigeration and air conditioning organizations on a national as well as a local plane.

He has been active in the Refrigeration Service Engineers Society ever since its inception, attending the Society's very first national conventions in Detroit and Memphis. He also is a member of the American Society of Refrigerating Engineers and the Chicago Association of Heating, Piping,

SERVICEMEN & SHOW . . .

Continued from page 30

Electrochemicals; "Draught Beer" by Joseph Leinen, service manager of Jos. Schlitz Brewing Co.; "Inherent Motor Protection" by B. O. Haun, engineer of Spencer Thermostat Co.; and "Design of Motor Speed Compressors" by C. E. Ploeger, chief engineer of Servel's electric refrigeration division.

A demonstration of the operation and use of two-way radio for service trucks was presented by Gene Goebel,

service manager of the communications division of Motorola Corp.

New president of RSES, elected at the meeting, is Charles C. E. Harris. Other officers include: A. L. Robertson, first vice president; J. D. Nall, second vice president; H. T. McDermott, secretary; M. R. Hanks, treasurer; John Spence, educational chairman; and J. L. Driskell, sergeant-at-arms.

Directors elected for two-year terms are: W. E. Tierney, C. S. Tucker, Bert Miller, Earl Yockey, and J. M. Locke. Continuing as directors will be O. C. Yates, C. W.

Neisel, Floyd Lilley, Cecil Visger, and J. V. Berger.

Report of H. T. McDermott showed that as of June 30 last the association had 9,678 members and 163 chapters, with five more being formed.

A new feature of the convention was a safety contest conducted by George Schuld, RSES safety director.

Held in conjunction with the REMA educational exhibit were a number of illustrated lectures and films, which were open to visitors during the hours that the exhibits themselves were open. Included in these educational briefs were films on "Principles of Refrigeration" and "Adding and Removing Refrigerant" (Virginia Smelting Co.); "It All



Even severe vibration, shocks and temperature changes won't loosen them. For EASY-FLO brazed joints are every bit as strong and resilient as the parent metals. In fact, thousand of tests have proved the metals will give before the joints. What's more, EASY-FLO brazing is surprisingly fast and economical due to the combination of low working temperature and exceptional fluidity which distinguishes this silver brazing alloy. These facts account for the present wide-scale use of EASY-FLO brazing in the fabrication, installation and repair of

refrigeration equipment like the condenser above, as well as heating and air conditioning equipment, of every kind.

Wherever the joining of pipe or tubing is involved, it pays to braze with EASY-FLO. BULLETINS 12-A and 15 give you the eye-opening details. Write for copies today.

HANDY & HARMAN
82 FULTON STREET NEW YORK 7, N. Y.
Bridgeport, Conn. • Chicago, Ill. • Los Angeles, Cal. • Providence, R. I. • Toronto, Canada
Agents in Principal Cities



Photo by Irving Alter, Harry Alter Co. Charlie Harris (left), The Refrigeration Industry's "Man of the Month" for October and new president of RSES, receives the symbol of office from his predecessor, Bill Marshall.

Adds Up to Better Service" (Westinghouse Electric Corp.); "Redwood Gaints" (Pacific Lumber Co.); and illustrated talks on "Solving Your Moisture Problems" (K. M. Newcum, Remco, Inc.); "Suction Line Regulators" (Alco Valve Co.); "Testing Technique and Refrigeration Service Aids" (Emmett Williams, Airserco Mfg. Co.); "Dehydration Methods from the Valve Manufacturer's Standpoint" (Frank Carter, Detroit Lubricator Co.); "Thermostatic Expansion Valves" (W. F. Wischmeyer, Sporlan Valve Co.); "Open Type Refrigerated Fixtures" (J. H. Spence, Hussmann Refrigeration, Inc.); "The Safety Head" (J. F. Myers, Black, Sivalls & Bryson, Inc.); "The Thermobank" (S. C. Segal, Kramer Trenton Co.); and "Plates and Their Application" (A. F. Sawyer, Dole Refrigerating Co.)

FRIGIDAIRE BUILDS 10-MILLIONTH UNIT

Frigidaire Div., General Motors Corp., celebrated the twenty-seventh anniversary of the first Frigidaire refrigerator built in Dayton by building more Frigidaire refrigerators in one day than on any single day previously in the company's history. In so doing, Frigidaire passed the 10 million mark in production of refrigerating units for homes and businesses.

The 10 millionth Frigidaire represents an especially outstanding achievement because the tenth million units were produced in only as many months as it took years to build the first million.

During this twenty-seven year span, the Frigidaire factories have grown from one small building to three huge plants in Dayton, employing more than 21,000 people, and occupying nearly four million square feet of floor space. In addition, the modern Frigidaire factory in Canada has been increased in size to provide 343,000 square feet of floor space, and the Overseas Division manufactures or assembles Frigidaire products in several foreign countries.

Frigidaire product lines have expanded during this period until today there are more than 45 different groups of appliances, commercial refrigeration and air conditioning equipment, available in over 500 models and sizes.

ANSUL EXPORT DIVISION MOVED TO MARINETTE

The export division of Ansul Chemical Co. has been moved from Philadelphia to the home office at Marinette, Wis. C. B. "Barney" Beidler is manager of the division. Ansul has been exporting refrigeration chemicals for 25 years and has distributors and representatives in all Central and South American countries and in many European, African and Asiatic lands.

PHILCO OFFERS MODELS FOR CHRISTMAS TRADE

Deviating from its long-standing policy of presenting all new models at its annual January refrigeration sales-convention Philco Corp. placed two new 1949 refrigerator models on the market in time to take care of the unprecedented Christmas demand.



GOV'T REPORT DESCRIBES ICED VENTILATION UNIT

A relatively inexpensive "air conditioning" system suitable in certain parts of the country for intermittent use in homes and small buildings is described in a report now available from the Office of Technical Services,

Department of Commerce, Washington 25, D. C., at a cost of \$1.25 per copy.

The system was developed by the Bureau of Engineering Research of the University of Texas under a research contract from the Office of Technical Services in 1947. It describes a unit "combining three features—ice, evaporation, and ventilation—in such a manner as to provide comfort cooling for 4- or 5-room houses or the equivalent space under all conditions of temperature and humidity."

Detailed information is contained in the report on the construction of the test ventilating system. Tables provide observations of its performance and an evaluation of experimental results.

WEATHERHEAD TO HILTON

The Weatherhead Co., Cleveland, has appointed Peter Hilton, Inc., New York City, to handle the national institutional and industrial trade copy of that firm and all its affiliates effective January 1, according to an announcement by Don Fairchild, advertising manager.

REWA members offer you

7. Stockrooms containing hundreds of items and maintained at a large investment.
8. Adequate, up to the minute displays of merchandise which can be inspected at any time.
9. A business connection that does not compete with the trade by contracting for installation or service.
10. Sound, intelligent engineering advice which is always available when needed.
11. A business reputation backed by an organization of 13 years' operation according to approved business policies.
12. Every assistance to enable you to expand your business through prompt, efficient service.

11

REWA was founded in 1935 and is comprised of leading wholesale outlets throughout the United States and abroad. Association members are efficient, reliable business men who adhere to a strict code of ethics. Their reputation is your guarantee of complete satisfaction.

180 MEMBERS
MAINTAINING
OVER 300
CONVENIENT
OUTLETS

BUY FROM A



MEMBER

H. S. McCloud, Executive Secretary

920 East McMillan St., Cincinnati 6, Ohio



*Distribution and Policy Announcement
Concerning*

**REFRIGERATED PACKAGED
AIR CONDITIONING UNITS**

● We are distributing usAIRco refrigerated Store Conditioners, Window and Room Conditioners through Major Distributors or Refrigeration and Air Conditioning jobbers exclusively.

We are franchising Major Distributors or Refrigeration and Air Conditioning jobbers, on an exclusive basis pertaining to territories, with full territory protection.

We will make available *complete Financing assistance to the Dealers of Major Distributors or Refrigeration and Air Conditioning jobbers.*

Wire, phone, or write for details on our 1949 Products and Sales Program.

PACKAGED AIR CONDITIONING SALES DIVISION

UNITED STATES AIR CONDITIONING CORPORATION

Como Ave. S. E. at 33rd



Minneapolis, Minn.

AIRTOPIA . . .

Continued from page 29

the switching valve. Here, the gas is condensed to liquid giving up its heat to the air passing over the coil. From the condenser, the liquid falls into the receiver, out again through a liquid sub-cooling coil which pre-heats fresh air make-up to the outside coil where it is evaporated thus cooling the air passing over the outside air coil. From the outside air evaporator or outside air coil it goes back to the compressor to begin the cycle over again.

For cooling, the cycle is reversed and the switching valve directs the hot discharge gas to the outside air coil.

For water units, the outside air coil is replaced with a water heat exchanger. The cycle of operation remains the same.

Operating Costs Vary

Due to the automatic nature of the unit and its quick response to calls for either heating or cooling, the problem of estimating cost of operation is somewhat complex.

All units are equipped with a ventilating switch which enables the user to let the ventilating fans run even though cooling or heating might not be required. Of course, the individual can control his operating costs by the frequent use of the ventilating switch.

In fact, on one commercial installation employing the use of two 10-ton units, the operating costs were reduced from \$135 a month to \$85 per month by merely allowing the temperature to rise to 76 or 78 F during the summer rather than holding it to a constant 72 to 74 F. This cost was for 18 hours per day operation.

With the introduction of the remote type unit, Airtopia offers the contractor all the benefits found with any complete air conditioning system. As many as three conditioned air units can be operated in connection with one outside air unit, thus giving zone control operation to a heat pump installation.

With the Airtopia system, the heat pump is no longer a complex problem but one that any competent air conditioning contractor who can calcu-

late heat loads and knows air distribution can handle.

Development of a unit using the earth as a source of heat is almost complete and it is expected that such a unit will be released for general sale and distribution by June of 1949.

The air unit usually has a lower installation cost than units using water as a source of heat. Where outside temperatures occasionally fall as low as 10 F for short duration, air units can be used with a waste water pre-heating coil installed in the outside air stream.

Since a greater portion of the

United States sustains cold spells of only short duration such a unit is practical and would not have an operational cost that would be considered excessive. The air unit lends itself to installation in existing structures more readily because of the simplicity of obtaining the source of heat.

Since Airtopia is fully automatic, consumers' installed prices run slightly higher than for similar manually controlled systems. Prices range upward from \$2100, but average about \$650 per ton of refrigeration capacity.

New! Accurate, easy-to-read Electrimatic LIQUID INDICATOR

- Exclusive design reflects light from any source.



This highly efficient Liquid Indicator shows shortage of liquid refrigerant even in darkest corners due to Electrimatic's exclusive design of reflecting surface just beneath the glass which takes advantage of light from any source. Gas bubbles in the liquid can be detected immediately. Protected by brass cover insuring double seal against refrigerant leaks. SAE flare or sweat connections.

ASK YOUR WHOLESALE

New Electrimatic Check Valve

An ideal valve for use in suction lines to keep refrigerant vapor in check. Arranged with three point guide to assure a tight seat. The formation of a gas cushion eliminates chatter. Precision engineered for lasting service. Available in 1/4 in. to 3/4 in. SAE flare connections.



Electrimatic

2100 INDIANA AVENUE

CHICAGO 16, ILL.

CANADA — 2025 ADDINGTON AVE., MONTREAL

DO A MORE PROFITABLE COMPRESSOR OIL BUSINESS WITH



They keep efficiency high,
operating costs low

WHEN a service engineer uses *Texaco Capella Oils*, he assures efficient, trouble-free compressor operation—because *Texaco Capella Oils* keep compressors free of gum and carbon deposits . . . coils clean. These benefits build business for service engineer, dealer and distributor.

Texaco Capella Oils are highly refined, moisture-free lubricants that do not react with refrigerants. They are stable and have exceptional resistance to gumming and sludging. You can get them in viscosities for every type and size of refrigerating compressor. All have very low pour tests.

Texaco Capella Oils are fully approved by leading compressor manufacturers. They come protected from contamination in *sealed* 1-qt., 1-gal. and 5-gal. cans. You'll do a more profitable business with them. The Texas Company, 135 East 42nd Street, New York 17, N. Y.

FREE LUBRICATION GUIDE. Latest edition. Lists make and type of compressor and refrigerants in 64 Electric Refrigerating Units and 39 Air Conditioning Units. Shows recommended grade of *Texaco Capella Oil* for each. Use guide as wall chart, or bind into service manual.



TEXACO Capella Oils

FOR ALL AIR CONDITIONING AND REFRIGERATING EQUIPMENT



Tune in...TEXACO STAR THEATRE presents MILTON BERLE every Wednesday night. METROPOLITAN OPERA broadcasts every Saturday afternoon.

THE PRACTICAL Refrigeration Applications MANUAL ... by Harold Smith

THE Practical Refrigeration Applications Manual, which will appear in this space each month as the successor to The Practical Refrigeration Engineering Manual, is intended to answer the needs of those refrigeration and air conditioning men who may from time to time encounter field engineering problems too tough for them to handle. We urge all such readers to submit these problems to us. Each letter of inquiry will be answered personally by the author of this series, who will give the writer the benefit of his long and varied experience by providing an analysis of each problem submitted and by offering his recommendations for its solution. Those problems which appear to have the widest reader interest will be published in these columns from month to month. All questions or problems should be clearly and completely stated, with all facts, figures, and additional information needed for an adequate analysis of the situation. Address your problems to: The Refrigeration Industry, Manual Dept., 1240 Ontario St., Cleveland 13, Ohio.

PROBLEM

I AM asking you for a bit of information that may help me solve a problem which, while not too serious as yet, could develop as such, since the customer has made his first complaint.

"In the twenty-three years of experience I've had in the service and erection business I have always found help and advice needed from time to time. My problem is as follows:

"A florist customer of mine is experiencing some difficulty in holding his produce satisfactorily in the cooler which I built for him. Mold is developing on fern and other leafy floral background material. Glads and carnations after 10 days seem to pick up some roughness (as rusty spots) which appears on the flowers. This is sometimes noticed in four or five days.

The florist is well trained in the business, having had around 20 years of experience in retail flower design and growing. He has now grown to the extent of a wholesaler, so naturally his stocks are larger and his requirements are larger as well.

"I erected in July of this year a

walk-in cooler measuring 14 feet x 14 feet x 8 feet and furnished a 1½ hp medium suction condensing unit (Mills Model F 150-A3S) and an H.R.867 cooling unit (Filterpure). The temperature is controlled by one Detroit temperature control set to cut in at 50 F and out at 45 F (pressure switch used as limit switch only).

"Running time is based on 16 hours but the unit actually is running much less. Wet bulb and dry bulb readings are as follows: 48 F wet, 49 F dry at 9 a.m. today. On a previous check they read 48 F dry, 46 F wet, and at another time 44 F dry, and 42 F wet.

"The cooler is well built having 4 inches of cork in walls and ceiling and 3 inches in floor. It is fitted with a 6 foot x 3 foot 6 inch factory built standard 4-inch cork door (United Cork). The 2-inch cork slabs were applied with 180 MP asphalt, plastered inside with emulsion, and finished with two coats of aluminum paint.

"The customer receives his fern in crates lined with a wax coated paper and has received as many as six crates in one order, opening them as needed. I have advised him to open all crates upon receipt for best results. I believe this may have some effect as the ferns are damp on arrival.

"I shall greatly appreciate it if

odorless

Jarrow...

Refrigerator Door Gaskets Are Again
Made From Crude Rubber

Always Demand These
Quality Gaskets

JARROW PRODUCTS
420 N. LA SALLE ST., CHICAGO 10, ILLINOIS

TINIT SAVES TIME



When you've got a "tough job"—just tin with TINIT. Flows into hard-to-get-at places—into joints and bends! Cleans, tins and fluxes stainless steel, black iron, hard-drawn copper and all metals in one quick operation. Sold by refrigeration service, tinning supply, automotive and other jobbers for 19 years.

BUY FROM YOUR JOBBER

TINIT MFG. CO., INC.

P. O. Box 794, Denver, Colo.

SPECIFY
DELAVAN
WHEN YOU NEED

VALVE PLATES



All Delavan Valve Plates furnished with upper and lower gaskets.

DELAVAN MANUFACTURING COMPANY

3009 SIXTH AVENUE
DES MOINES 13, IOWA

Specify
**MARLEY
NOZZLES**



For Dependable Service

Marley patented Spray NOZZLES are used by industries where efficiency and economy are required.

Write today for your Copy of the Marley Spray Nozzle Bulletins.



THE MARLEY CO., INC.
KANSAS CITY 15, KANSAS

you can give me some information on the best long storage period for flowers and the like, and recommended r.h. and temperature. Also, can you tell me if the aluminum finish may have any harmful effect by being light in color? Would you suggest a dark finish? Anything will be appreciated.

"As I have mentioned, the cooler was erected in July of this year and placed in service on July 21. The first complaint was made to me on Oct. 4.

"I have questioned the condition of the fern on arrival, although I know of no way of ascertaining this except that the supplier has always furnished good merchandise. It is believed that the wax paper lining helps to increase the life of the fern.

"I am a refrigeration man and not a florist, so if 50 F dry bulb and an r. h. of around 85% doesn't do the job, I am stumped."

SOLUTION

FROM the information you have given us, it appears that the refrigeration equipment you have used undoubtedly provides adequate capacity to handle the cooling job, as the machine cycles on an operation of less than 16 hours total running time in a 24 hour period, while maintaining satisfactory temperatures.

Also, the unit cooler provides an operation with a high relative humidity.

You did not state whether or not the unit cooler fan is operated during the off cycles of the machine. If the fan circulates the air in the cooler continuously during both the on and off cycles of the machine, we should look elsewhere for the trouble you have experienced.

As you have investigated the condition of the product when received by your customer, and have the customer's opinion that the product is in good condition when received, another possible cause is eliminated.

It might be well, however, to check into this phase of the matter further, as flowers and such products do deteriorate with age, particularly when removed from their natural growing conditions, with stems cut, etc.

We are rather inclined to believe you may find your trouble caused by a combination of two conditions.

First, some of these plant products are held in the cooler until they pass their peak condition and start to deteriorate.

Second, you may be adding to this condition because of poor or, should we say, inadequate air circulation in some locations in the cooler. Possibly this is caused by the fact that at times the cooler is crowded with products, thus interfering with the circulation at certain points in the cooler.

Molds usually develop faster under high humidity conditions with little

or no circulation of air. We are somewhat inclined to believe this may be found to be the cause, or at least a contributing cause, of your trouble.

You state in your letter that this customer's business is expanding, which might result in larger stocks held for longer periods of time under crowded conditions.

Check into this situation carefully. Check the length of time products are in shipment, the length of time products are refrigerated before being sold. Also check their condition when received for any evidence of de-

CORRECTION

WE REGRET that an inadvertent typographical omission in last month's section of "The Practical Refrigeration Applications Manual" caused one sentence to read incorrectly in a way which may have caused some confusion to our readers.

This omission occurred in the fourth paragraph of the center column on page 70, in the sentence which commences: "Solenoid valves should. . . ." The balance of this paragraph should read as follows: "Solenoid valves should be placed in each liquid branch-off line between the hand control valve and the expansion valves in the cooler and chill rooms, these solenoids to be operated from individual room thermostats installed in each fixture. A suction line check valve should be installed in the branch suction line in the storage cooler between the coils and the hand control valves."

terioration upon arrival at your customer's place of business. Try rearranging the location of the products causing the most trouble, being sure to get them where they are definitely in the circulating air stream within the cooler.

Such tests as we have suggested take time and patience but may lead you to the cause of your trouble.

If our suggestions do not help you to eliminate this condition, please write to us again, giving us additional information to enable us to check into this problem further.

We do, however, believe our suggestions may be helpful to you in correcting this condition. We do not believe that the light reflection from the aluminum is responsible for this condition.

We suggest you secure a copy of circular #278 issued by the U. S. Dept. of Agriculture, Washington, D.C. entitled "The Commercial Storage of Fruits, Vegetables and Florists Stocks." This bulletin may provide further information that will assist you in eliminating this problem.



The easy-to-work-with refrigeration tube

REVERE DRYSEAL!

● More and more refrigeration and air conditioning men are using Revere Dryseal Copper Tube. Here's why:

This uniformly soft tube is easy to bend and flare.

A dependable end seal permanently protects the clean, bone dry interior and will pass through any opening large enough for the tube itself.

The new, economical dimensional standards provide economy.

The new red and blue package protects the tube, keeps it bright and clean, and is readily identifiable in your stock.

You are sure of fine quality in every length of copper refrigeration tube you buy when you ask by name for REVERE DRYSEAL, the tube that's easy to work with.

This tube comes in sizes from $\frac{1}{8}$ " to $\frac{3}{4}$ " O.D., and is packed two 50-foot coils to a package.

Revere Dryseal dehydrated refrigeration tube is handled by leading distributors in all parts of the country.

REVERE

COPPER AND BRASS INCORPORATED

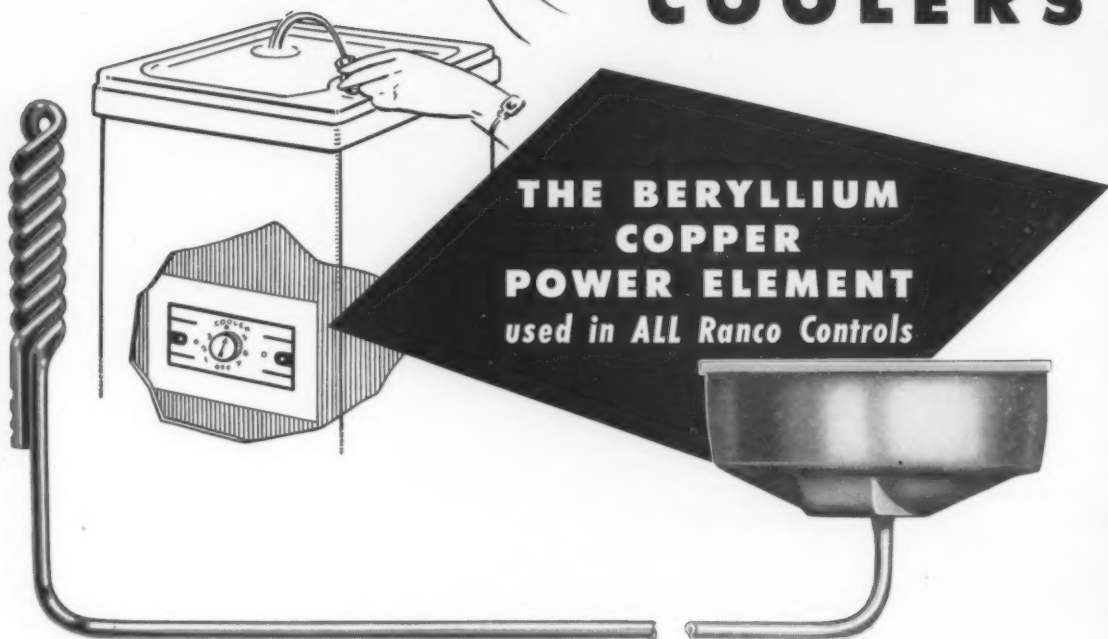
Founded by Paul Revere in 1801

230 Park Avenue, New York 17, New York

Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; New Bedford, Mass.; Rome, N. Y.—Sales Offices in Principal Cities, Distributors Everywhere

RANCO CONTROLS

first choice
FOR
WATER COOLERS



Both manufacturers and servicemen alike look to Ranco's leadership—its record of more than a score of firsts in the past 20 years—for the design developments that insure dependable, trouble-free performance and service. Every Ranco Refrigeration Control, for example, has the new and exclusive Ranco beryllium copper power element designed and produced by Ranco refrigeration specialists, thoroughly tested in hundreds of thousands of applications.

The maximum sensitivity and positive action of this new leak-proof power element, which is precision built of the finest materials with each joint silver soldered, provides temperature accuracy within new low limits.

Ask your Ranco wholesaler to show you the eight Ranco models designed especially for water cooler installations. The more than 20,000,000 Ranco controls now in use attest the ability of Ranco-built Controls to meet your most exacting requirements.

Ranco Inc.
COLUMBUS 1, OHIO



World's Largest Manufacturers of REFRIGERATION CONTROLS

THE SERVICE MAN'S DEPARTMENT

Here's how

Edited by
Warren W. Farr

Does Your Prospect File Really Work For You?

Some sort of a prospect file is virtually an essential to any type of merchandising organization. But no prospect file, regardless of how many names it may contain, is any better than the effectiveness of its operation.

Here are a few fundamentals (based on practical experience) governing the operation of a prospect file, which will make that file a more effective sales tool for your salesman and for you.

1. Prospects should be classified not only as to their interest in certain products and trade names, but also as to the degree of their interest in new developments in general.

IN several business offices where the complaint was noise in the water cooler highside, our servicemen have found that they have been able to minimize the problem by installing strips of "Celotex" under the highside.

In cases where absolutely quiet operation is a necessity, we install sponge rubber strips under the units.

L. Schiff, Brooklyn, N. Y.

2. They should be given constant attention. Many cards "die" in the file while awaiting handling. In all cases, the listed prospects should be followed up frequently, to demonstrate the firm's interest in the individual customer, and to catch sales opportunities when they occur.

At each call, the salesman should use the card to refresh his mind as to the needs, position, and buying habits of his prospect. A notation of every call should be added on the file card, to keep it up to date.

Even the most inactive prospect should be contacted periodically, according to the salesman's estimate of possibilities. If nothing else, such calls keep the firm name in the prospect's mind.

HERE is a maintenance tip for any serviceman who may have occasion to work on some of the old Montgomery Ward ("True Kold") machines. These units are obsolete now, of course, and it is impossible to obtain parts for them.

On many of these machines which I have been called upon to service I have found that the primary difficulty is a seal leak. Lacking a new seal, I have found that by lapping the old seal, and then making a gasket to place behind it, it is possible to again get a tight fit. Without the gasket, however, the seal would not set up close enough to do an effective job.

Frank G. Joe, Helena, Mont.

3. One of the most practical methods of keeping a prospect file paying results is to schedule the cards so that each comes up for attention on a certain date. Under this plan, no card is overlooked or ignored, and the prospect has no chance to forget that a salesman will be around to see him.

4. Where the file is too large for individual personal calls at all times, use of the telephone often suffices to keep interest alive, and to make sales if the moment is ripe.

It requires only a few months to build up a file actually covering most of the potential market, but such a file is of little value if it is not con-

ONE of the best short cuts I have run across in my service work concerns the use of a halide leak detector.

As any serviceman knows, it often happens that when probing around for leaks with a detector of this type you press the end of the tube against something and the flame goes out. Next time this happens to you, instead of fumbling around for matches with which to relight the torch, just hold your finger over the end of the air intake tube and it will relight itself.

Stan Rutcosky, Minnesota, Minn.

stantly revised to keep it in a current condition. The wise sales organization will spend some of the slack time available now in refining and revising its prospect file so that it will be in shape to do the most effective possible job when the heavy selling season starts again.

Help Your Customers Help Themselves

If you're selling commercial refrigeration fixtures you can do your customers a good turn—and at the same time create a favorable atmosphere for future sales—by being sure that each customer knows how to use each fixture with maximum effect and maximum efficiency.

HERE is a very helpful method I have found for installing those small oval rubber mountings in Delco motor end bells. As these mountings are deliberately made a little oversize, they are very hard to work into place without special tools. I have found, however, that by lubricating these mountings well with soap they can readily be pushed into place with the fingers.

Frank Thompson, Pennsville, N. J.

For instance, in the case of open-type refrigerated cases, considerable savings in electric current consumption can be effected by keeping these cases well stocked. Actual field tests have shown that if cases of this type are not kept fairly well stocked warm air circulates more freely within the case, thus requiring more running time (and more current consumption) on the part of the compressor.

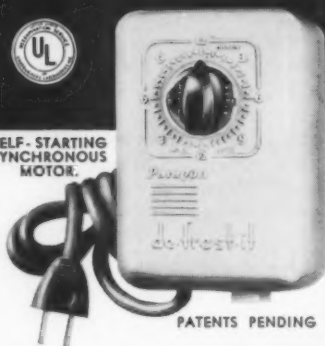
Similar tests have shown that additional savings in electricity can be made by defrosting and cleaning all types of refrigerated cases on a regular schedule. As any refrigeration man knows, an accumulation of ice on the coils cuts efficiency by as much as one third.

Now!
Automatic
DEFROSTING
Every Night for
Home Refrigerators

Paragon
de-frost-it
"DEFROSTS . . . WHILE YOU SLEEP"



SELF-STARTING
SYNCHRONOUS
MOTOR.



PATENTS PENDING

Brings Quick Profits

- Every electric refrigerator owner is a live prospect.
- No installation necessary. Just plug into outlet—plug refrigerator cord into 'de-frost-it.'
- Nationally advertised in leading publications. Completely merchandised.
- Retails fast at **\$9.95**. Repays user by saving time, food and electricity.

ASK YOUR JOBBER OR WRITE FOR DETAILS

Paragon ELECTRIC COMPANY

1634 12th St.

Two Rivers, Wis.

TRADE MARK REGISTERED

Paragon
de-frost-it
"DEFROSTS . . . WHILE YOU SLEEP"

MILL WORKERS PROVED "HEAVY DRINKERS" BY WATER COOLER SURVEY

Steel mill workers and other employees operating under conditions of high temperature and oppressive humidity require almost twice as much drinking water as other workers, it has been disclosed in a survey conducted by the Drinking Water Cooler Manufacturers Association.

According to the survey the average steel mill worker, operating under temperatures of 120°F. and in air contaminated with carbon and sulphur fumes, must have nearly four glasses of water per hour. This is contrasted to the half a glass per hour required by the average person not doing laborious work and the slightly more than two glasses of water an hour needed by the average working man.

The Association recommended 50°F. as the proper temperature for drinking water, pointing out that workers drinking water at icy cold temperatures frequently develop "mill cramps," illness and exhaustion. Also, water that is too warm or

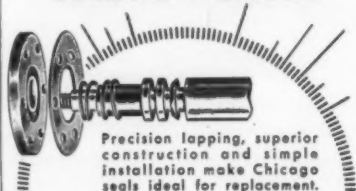
too cold discourages the drinking of the required amount.

It has long been the practice of steel mills to furnish salt tablets at water coolers to that the saline losses of the body can be replaced. In this connection, Inland Steel developed a unique system for injecting salt into drinking water.

The salinizer, developed by Inland, injects a salt brine into the water main in much the same manner as chlorine is injected. They strive to maintain a .09% concentration of salt. This is approximately the same salt concentration found in human blood and tissue. When the drinking water is cooled, the salt taste is not discernible.

PLAYSAFE

USE
CHICAGO SEALS
and
VALVE PLATES



Precision lapping, superior construction and simple installation make Chicago seals ideal for replacement.

Only Chicago valve plates have replaceable seats.



CHICAGO SEAL CO.
332 N. HOLME AVE. CHICAGO 12, ILL.



Bussell
"Just like the boss says, Beepsley: if you were a bit more choosy about your spare-time reading, you'd get ahead a lot faster."

ESTON NAMES STERLING IN EASTERN TERRITORY

Eston Chemicals, Inc., Los Angeles refrigerant producer, has appointed Sterling Refrigeration Products, Barr Building, Washington, D. C., as its sales representative for the eastern U.S. area. Sterling F. Smith is head of the Sterling concern. Eston produces sulphur dioxide, methyl chloride, and is agent for "Freon" refrigerants.

HOFFMAN SUPPLY CO. IN NEW QUARTERS

Hoffman Supply Co., refrigeration wholesaler, held the grand opening of its new headquarters store at 428 N. Jefferson Ave., Springfield, Mo., on Dec. 17. Door prizes, souvenirs and refreshments were available and customers and their employees were guests of the company.

OPPORTUNITIES

Classified Advertising Section

Rates: for "Positions Wanted", \$3.50 minimum, limit 25 words. For all other classifications, \$4.00 minimum for 25 words, each additional word 15c; boldface type or all capitals, \$7.50 minimum for 25 words, each additional word 20c; limit 50 words. Box addresses count as five words.

POSITIONS WANTED

Selected group of men, graduates of well-known trade school, desire employment in Refrigeration Field. Will travel anywhere. Qualified in domestic and commercial refrigeration. Reliable. Contact Placement Dept., Eastern Technical School, 888 Purchase Street, New Bedford, Mass.

FOR SALE

Stop Terminal Leaks in Crosley Sealed Units by using the Jiffy Terminal. Easy to install, no special tools needed, can be installed in a few minutes without removing unit from cabinet. Set of three terminals. \$4.00 or see your jobber. Detroit-Sealed-in Parts Co., 19191 Rogge, Detroit 12, Mich.

FOR SALE—Air-cooled and Water-cooled remanufactured condensing units, $\frac{3}{4}$ up to 2 H.P. Write for particulars, Edison Cooling Corp., 310 East 149 St., Bronx 51, N. Y.

MERCHANDISE FOR SALE. Brand new freezer plates, all or any part: 374—19" x 30" Yoder plates @ \$3.35 ea., 4—19" x 36" Yoder plates @ \$4.35 ea., 112—19" x 72" Yoder plates @ \$7.00 ea., 166—19" x 32" Dole plates @ \$3.75 ea., 6—19" x 48" Dole plates @ \$4.75 ea., 3—19" x 54" Dole plates @ \$5.35 ea., 60—19" x 78" Dole plates @ \$8.00 ea., 14—22 $\frac{1}{2}$ " x 76" Stangard Dicker-

son plates @ \$10.00 ea. All Yoder plates fitted with two $\frac{1}{2}$ " male copper tube connections on the 19" end. All Dole plates fitted with two $\frac{1}{2}$ " female pipe connections on the 19" end. All plates for use in vertical installations. Send checks or deposit with order to CROWN REFRIGERATOR CORPORATION, Metuchen, New Jersey.

16 cubic ft. freezer cabinets, 4 cubic ft. domestic refrigerators. Rathbun Refrigeration Company, 325 Scribner Avenue, N. W. Grand Rapids 4, Michigan.

FOR SALE: 2 Model 503 "Copeland" units as advertised in the Copeland catalog, all in crates ready for shipment. Price \$395.00 per unit. R. A. Karlen U.C.P., 3924 W. Street N. W. Washington 7, D. C.

TOOL SERVICE

COLDSPOT INFORMATION: NOW YOU CAN SUCCESSFULLY REBUILD COLD-SPOT UNITS. Complete information covering repairing, rebuilding compressors, refacing seals, charging, do's and don'ts, best methods, and a score of other helpful hints. A list of complete parts at wholesale prices. A list of special tools that will save you many dollars, as well as time. Send FREE to Servicemen and Jobbers. PRECISION-BUILT TOOL AND PARTS COMPANY, 4530 Gravois Avenue, St. Louis 16, Missouri.

MAGIC

IN A SMALL BOTTLE

FREEZE-UPS ELIMINATED RIGHT AWAY!



ICE-X quickly cures emergency freeze ups when ice forms at the expansion valve or capillary tube. Harmless to use. Great for Freon, Carrene, or Methyl Chloride systems . . . The dependable liquid anti-freeze.

"ONE SERVICE MAN TELLS ANOTHER - IT'S GREAT"

ORDER FROM YOUR JOBBER OR -

EXCLUSIVE NATIONAL DISTRIBUTOR

THE HARRY ALTER CO. 1728 S. MICHIGAN AVE. CHICAGO 16, ILLINOIS

JOBBERS: WRITE FOR SPECIAL PROPOSITION!

JANUARY, 1949

Non Stop SATISFACTORY

VIA Sanitary



TE45 ELECTRIC TRAILER REFRIGERATOR

SANITARY Electric Refrigerators for trailer homes and city apartments will operate efficiently, when built in because they are specially engineered. Equipped with nationally known condensing unit. Available in 4 and 6 cu. ft. net sizes at attractive prices. The market is all around you and it's ready for the harvest. Write for detailed information.

SANITARY REFRIGERATOR CO.
FOND DU LAC WISCONSIN

IMPROVE INSTRUMENT PERFORMANCE WITH PRECISION PARTS



FROM **WALTHAM SCREW COMPANY**

Special or stock fittings and screws of brass, steel or alloy. Send us your blue prints . . . our estimates please efficiency experts! Anything You Want . . . The Way You Want It...

RIGHT and REASONABLE!

WALTHAM SCREW COMPANY
73 Rumford Avenue, Dept. D
WALTHAM, MASS.

VIRGINIA REFRIGERANTS



**consistently pure
consistently sure**



VIRGINIA

Refrigerants

West Norfolk • New York • Boston • Detroit

VIRGINIA SMELTING COMPANY, WEST NORFOLK, VA.

Distributors for Kinetic's "Freon" Refrigerants

INDEX TO ADVERTISERS


THE REFRIGERATION INDUSTRY

JANUARY, 1949

Alco Valve Co.....	1
Allen-Bradley Co.....	8
Harry Alter Co.....	71
Ansul Mfg. Corp.....	4
Artkraft Mfg. Corp.....	35
Automatic Products Co.....	Cover 3
Ben-Hur Mfg. Co.....	Cover 2
Black Sivals & Bryson, Inc.....	45
Brunner Mfg Co.....	13
Carrier Corp.....	21
Century Electric Co.....	9
Chicago Seal Co.....	70
Curtis Refrigerating Machine Div., Curtis Mfg. Co.....	6
Davison Chemical Corp.....	50
Delavan Mfg. Co.....	66
Detroit Gasket & Mfg. Co.....	57
Detroit Lubricator Co.....	12
Electrimatic Div., Simoniz Co.....	63
Eston Chemicals, Inc.....	46
General Controls Co.....	7
General Refrigeration Div., Yates-American Machine Co.....	19
Grand Rapids Brass Co.....	15
Handy & Harman.....	60
Heat-X-Changer Co., Inc.....	56
Henry Valve Co.....	49
Highside Chemicals, Inc.....	59
Jamison Cold Storage Door Co.....	5
Jarrow Products.....	65
Johns-Manville Corp.....	48
Kelvinator Div., Nash-Kelvinator Corp.....	47
Kerotest Mfg. Co.....	58
Kold-Hold Mfg. Co.....	10
Kramer Trenton Co.....	14
Lehigh Mfg. Co.....	42
Marley Co., Inc.....	66
Marlo Coil Co.....	16
Mills Industries, Inc.....	51
National Lock Co.....	53
Northern Indiana Brass Co.....	20
Packless Metal Products Co.....	44
Paragon Electric Co.....	70
Penn Electric Switch Co.....	22
Ranco, Inc.....	68
Refrigeration Engineering, Inc.....	54
Refrigeration Equipment Wholesalers Association.....	61
Revere Copper & Brass, Inc.....	67
Rotary Seal Co.....	55
Sanitary Refrigerator Co.....	71
Servel, Inc.....	17
Cyrus Shank Co.....	42
Sporlan Valve Co.....	11
Stangard (Noma Electric Corp.).....	43
Sun Oil Co.....	25
Superior Valve & Fittings Co.....	52
Temprite Products Corp.....	2
Texas Co.....	64
Tinit Mfg. Co.....	65
Turner Brass Works.....	41
U. S. Air Conditioning Corp.....	62
Virginia Smelting Co.....	72
Wagner Electric Corp.....	18
Waltham Screw Co.....	71
Weatherhead Co.....	32
Winternitz, Samuel L. & Co.....	44

Don't miss this!

INVITATION TO PROFIT

Visit  Booth 413.415 during
the Heating Ventilating and
Air Conditioning Exposition

Chicago • January 24 - 28

*See the
Complete Line of
Dependable
Controls for...*



- AIR CONDITIONING
- REFRIGERATION
- OIL
- GAS
- COAL-FIRED HEATING

AUTOMATIC PRODUCTS COMPANY

2468 North Thirty-Second Street • Milwaukee 10, Wisconsin



DEPENDABLE *Controls*

FOR HEATING • AIR CONDITIONING • REFRIGERATION

52 WHOLESALERS
26,000 AUTHENTICATED
READER-BUYERS

TO
REACH THE BUYERS
USE

THE "C.B.P." Plan

FOR

- ✓ *Authenticated Readers*
- ✓ *Complete Market Coverage*
- ✓ *Lowered Sales Costs*
- ✓ *Greater Sales Volume*

THE WHY! WHAT! and HOW! of C. B. P.

Currently REFRIGERATION INDUSTRY has over 26,000 readers. In addition to the CCA QUANTITY guarantee of circulation, REFRIGERATION INDUSTRY now gives the advertiser an added QUALITY value through the C.B.P. (Certified Buying Power) plan. The plan was established after carefully selecting 52 outstanding refrigeration equipment wholesalers located in key marketing areas throughout the nation.

EACH WHOLESALER—A REFRIGERATION INDUSTRY CIRCULATION MANAGER

Each wholesaler subscribes for his active and most important refrigeration equipment customers, and for his best prospects. The wholesaler pays us \$1.20 per year per subscription. These constitute

an "identifiable" readership composed of authenticated, known buyers and users . . . the wholesalers being the authenticating agents! Thus—under "C.B.P."—Readers-Buyers become synonymous and interchangeable . . . adding the missing sales link for the advertiser. Regardless of whether you—as the manufacturer—sell direct or through wholesalers—REFRIGERATION INDUSTRY guarantees CERTIFIED BUYING POWER. These 26,000 reader-buyers comprise the known national market for refrigeration equipment and, therefore, are the people to whom you must tell your story. REFRIGERATION INDUSTRY reaches more than just "people"—or "names"—or "positions"—it reaches BUYERS. Here is "CERTIFIED BUYING POWER"—around which you can most profitably build your sales and merchandising campaign.

THE REFRIGERATION INDUSTRY

1240 ONTARIO STREET CLEVELAND 13, OHIO

